

SPRING 2018 SEMI-ANNUAL GROUNDWATER MONITORING REPORT OLD MIDLAND PRODUCTS SUPERFUND SITE OLA, ARKANSAS

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Prepared for

Arkansas Department of Environmental Quality
Office of Land Resources
Groundwater Branch
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PROFESSIONAL GEOLOGIST'S CERTIFICATION

This Groundwater Monitoring Report was prepared under the direction and supervision of a qualified, Arkansas-registered Professional Geologist. Mr. Curtis Nunn, PG, of FTN Associates, Ltd. (FTN), was responsible for the overall preparation of the report.

Curtis Nunn, PG #1873

5 SPP 2018

Date

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1.0 EXECUTIVE SUMMARY

The Old Midland Products (OMP) Superfund site is a 38-acre tract of land located near Ola, Arkansas. Prior to 1980, creosote and pentachlorophenol (PCP) were used in wood treatment operations at this site. Consequently, site groundwater has been impacted by polycyclic aromatic hydrocarbons (PAHs), which are common constituents in creosote and PCP. Site remediation initially included pumping and treatment of impacted groundwater, which occurred between January 1994 and August 2006. In August 2006 an Amended Record of Decision (ROD) issued by the United States Environmental Protection Agency (USEPA) in February 2006, went into effect changing the groundwater remediation method to Monitored Natural Attenuation (MNA). The goal of the MNA program is to ensure there is no significant movement of the groundwater plume and that contaminants do not migrate beyond the boundary of the Technical Impracticability (TI) Zone. The Arkansas Department of Environmental Quality (ADEQ) has been monitoring the site since May 2009. FTN Associates, Ltd., (FTN) conducted spring 2018 groundwater sampling on behalf of ADEQ during the week of April 23, 2018. This report presents the findings from this semi-annual monitoring event.

PCP was detected at only one well location, MW-3S, at 799 μg/L, which exceeds the cleanup level of 1 μg/L. In addition, cleanup levels for four PAH compounds were reported at concentrations exceeding cleanup levels: naphthalene, benzo[a]anthracene, benzo[k]fluoranthene, and benzo[a]pyrene. Non-Aqueous Phase Liquid (NAPL) was observed in monitoring well MW-3D and recovery wells RW-1 and RW-7, indicating source material is present at the site. Except for notable detections in MW-3S, MW-3D, and RW-1, occurrences and concentrations of site contaminants are generally fewer and reduced or stable as compared to previous monitoring events. No site-related contaminants were detected in monitoring wells located downgradient from the TI Zone.

The primary mechanisms for natural attenuation of PCP and PAHs are adsorption and biodegradation. There are secondary lines of evidence that suggest biodegradation of PAHs and PCP is occurring at the site: groundwater data for pH, DO, and ORP generally indicate favorable groundwater conditions for natural attenuation, there is evidence that electron donors are being

depleted, degradation by-products are present, and decreasing trends for some constituents of concern indicate natural attenuation is occurring in the TI Zone at the site. These observations are generally consistent with those of previous monitoring events.

The groundwater monitoring program at OMP is intended to ensure that contaminants are not migrating beyond the TI Zone at concentrations above cleanup goals. As discussed in previous site reports, fractured bedrock presents a very complicated hydrogeologic setting in which to monitor contaminant movement and natural attenuation processes, as migration is affected by fracture geometry in addition to hydraulic gradients. During the current monitoring event, PCP and PAHs were not observed in monitoring wells downgradient from the TI Zone; nonetheless, site conditions prevent stating with certainty that contamination is contained within the TI Zone.

ADEQ personnel visited the site on April 26, 2018, to observe groundwater monitoring activities. No operations and maintenance (O&M) tasks were requested or completed for the current monitoring period.

2.0 SITE DESCRIPTION

2.1 Site Location

The OMP Superfund site is located approximately 1.2 miles southeast of Ola, Arkansas, off Highway 10 in Yell County. The entrance to the site is located at 35.023914 degrees latitude and -93.203684 degrees longitude. The site consists of approximately 38 acres of mostly undeveloped land with east-west right-of-way access for the Little Rock and Western Railway through the northern portion of the property. The OMP property formerly contained saw mills, a wood preserving treatment plant, waste storage lagoons, and water treatment settling lagoons. Figure 2.1 shows the location of the site.

2.2 Site History

2.2.1 Operational History

OMP operated a wood preserving plant and sawmill from approximately 1969 to 1979; however, historical imagery indicates a saw mill was operational at the site as early as 1960 (USEPA 2013). Wood preservation operations included treating wood with creosote and PCP. Effluent from the treatment process was discharged into lagoons. These lagoons frequently overflowed, draining to the on-site intermittent stream. Seepage from these unlined lagoons resulted in contamination of the shallow groundwater on site with NAPLs and associated dissolved organic constituents, primarily PCP and PAHs.

2.2.2 Past Environmental Regulatory Involvement

Between 1981 and 1988, ADEQ and the EPA conducted a series of inspections and determined that shallow groundwater in the area of the treatment lagoons was extensively contaminated with NAPLs, and overflow from the lagoons resulted in contamination of sediments and surface water in the on-site intermittent stream. In June 1986, the EPA added the OMP site to the National Priority List (NPL), and a Remedial Investigation/Feasibility Study (RI/FS) was initiated soon after. The RI/FS study found that PCP and PAH contamination was ubiquitous in surface and subsurface soils, surface water and sediments, groundwater, and fluids

in the lagoons. NAPL was identified in shallow groundwater at a depth of 20 ft below ground surface (bgs), and the volume of contaminated groundwater was estimated at 450,000 gallons. The human health risk assessment for the site concluded that the OMP site represented a risk to public health and the environment (USEPA 2006).

Site remediation activities designated in the 1988 ROD to address contamination source control included excavation and on-site incineration of contaminated soil, sediment, sludge, and extraction and treatment of contaminated groundwater. Soil, sediment, and sludge with PCP concentrations greater than 1 mg/kg were excavated and incinerated. Depths of excavation ranged from 0.7 ft bgs to 22.5 ft bgs. Remediated soil from the incineration process was backfilled in soil excavation areas and covered with clay and topsoil. Groundwater recovery wells were installed within the footprint of the excavated soil and remediated soil disposal area.

Groundwater pump and treat operations began in January 1994. The operation was shut down for a 20-month period beginning in January 1999, but contamination rebound occurred. The system was restarted in September 2000 and operated until August 2006 when the Amended ROD took effect (ADEQ 2011a). EPA issued the Amended ROD due to the pump and treat system's inability to remediate the aquifer to drinking water standards, the continued presence of both dense NAPLs (DNAPLs) and light NAPLs (LNAPLs), the complex site hydrogeology, and the length of time it would take to achieve the remedial goals (ADEQ 2011a). The Amended ROD (USEPA 2006) included a TI waiver for the area with the most contaminated groundwater and changed the groundwater remediation method to MNA with institutional controls to prevent use of contaminated groundwater. The MNA remedy required implementation of a groundwater monitoring program to ensure that there is no significant movement of the groundwater plume and that the contaminants are not migrating at concentrations above the cleanup goals beyond the TI Zone, which is the NAPL source area and surrounding monitoring wells (USEPA 2006). Figure 2.2 shows the TI Zone and groundwater monitoring network, including nearby residential wells. ADEQ has conducted semi-annual groundwater monitoring at the site since May of 2009. On March 22, 2017, ADEQ requested approval of a modification to the site O&M plan from the USEPA to discontinue sampling of the Barnes residential well. Approval was granted and the well has not been sampled since October 2016.

2.3 Environmental Setting

2.3.1 Topography and Surface Water Conditions

The OMP site is relatively flat with ground surface elevations between approximately 340 to 360 ft North American Vertical Datum of 1988 (NAVD88) (2017 USGS topographic quadrangle for Ola, Arkansas). Runoff from the site flows northwest to an intermittent stream, which flows northeast into Keeland Creek, located within the Petit Jean Wildlife Management Area.

2.3.2 Regional Physiography and Geology

The OMP site is located in the frontal Ouachita Mountains and closely borders the Arkansas Valley physiographic province. The Ouachita Mountains region consists of a series of generally east-west ridges and valleys formed by complex folds and thrust faults. North of the Ouachita Mountains, the Arkansas Valley forms a low-lying plain with low east-west ridges. Although much of the Arkansas Valley is only 300 to 600 ft above (mean sea level) MSL, the elevations of several ridges range from 1,000 ft MSL to more than 2,000 ft MSL. The site appears to be underlain primarily by the Pennsylvanian-aged Atoka Formation. McFarland (2004) describes the Atoka Formation as follows:

ATOKA FORMATION

Age: Pennsylvanian Period, Atokan Series.

Distribution: In Arkansas the Boston Mountains, Arkansas River Valley, and Ouachita Mountains; eastern Oklahoma, eastern New Mexico, and central and western Texas.

Geology: The Atoka Formation is a sequence of marine, mostly tan to gray silty sandstones and grayish-black shales. Some rare calcareous beds and siliceous shales are known. This unit has the largest areal extent of any of the Paleozoic formations in the state. It is the surface rock of the Boston Mountains and dominates the exposures in the Arkansas River Valley and the frontal Ouachita Mountains. It is also present in the southern part of the Ouachita Mountains. In the Arkansas River Valley and the frontal Ouachita Mountains, the Atoka Formation has been subdivided into upper, middle, and lower lithic members based on regionally mappable shale or sandstone intervals. The unit locally contains discontinuous

streaks of coal and coaly shale in the Boston Mountains and Arkansas River Valley. Fossil plants are common throughout the section but are generally poorly preserved. Poorly preserved invertebrate fossils are much less common and are found at several horizons. Trace fossils are relatively common in the Atoka Formation. The formation is conformable with the Bloyd Shale in the Boston Mountains and with the Johns Valley Shale in the Ouachita Mountains. The unit may be up to 25,000 feet in thickness in the Ouachita Mountains, although only large incomplete sections are known.

Original reference: J. A. Taff and G. I. Adams, 1900, U. S. Geol. Survey 21st Ann. Rept., pt. 2, p. 273.

Type locality: Named for Atoka, Atoka County, Oklahoma.

In the Ouachita Mountains physiographic province, the Atoka Formation is subdivided into upper, middle, and lower lithic members based on regionally mappable shale and sandstone intervals. The middle Atoka Formation outcrops in the area of the site and is described as a complexly folded gray-black shale ranging in thickness from 4,100 ft to over 6,200 ft, with three thick brown, micaceous, fine to medium grained sandstone intervals in the upper portion of the sequence (Haley, et al 2006).

In Yell County, Arkansas, the shale and sandstones of the Atoka Formation are part of the Ouachita Mountains aquifer (Kresse, et al., 2014). These low permeability rocks yield little water. As a result, limited quantities of groundwater are used only for domestic and non-irrigation uses. Fracture zones and bedding planes can function as high permeability conduits for groundwater flow in this aquifer.

2.3.3 Site-Specific Hydrogeologic Conditions

Based on a review of available boring logs, soils at the OMP site consist primarily of unconsolidated silty clay, which is approximately 6 ft to 21 ft thick. There is commonly a 0.5 ft to 1.5 ft layer with iron nodules at the base of the silty clay, which overlies highly fractured weathered shale. With depth, the shale becomes less weathered and contains fewer fractures. Shale generally impedes groundwater movement, except where open joints and fractures are present. Site boring logs indicate that the top of competent shale slopes to the northwest.

Historically, the aquifer at the OMP site has been divided into a shallow zone named the "Weathered Shale" and a deep zone named the "Unweathered Shale" (USEPA 2006). The upper

water bearing unit at the OMP site is within fractures and joint openings of the weathered shale, and to a lesser extent, underlying unweathered shale (USEPA 2006). The upper silty clay acts as a local confining unit. The weathered shale varies in thickness from 10 ft to 25 ft, is highly fractured, and has low strength. The unweathered shale directly underlies the weathered shale, is more competent, and is characterized by fewer fracture zones. According to past site investigations, shallow groundwater occurs in a 3-ft to 5-ft zone within the weathered shale at depths of 15 ft bgs to 20 ft bgs, in addition to occurring within the fracture zones of the underlying unweathered shale. On occasion, artesian conditions have been noted in the southwest portion of the site (USEPA 1988).

A literature review by FTN (2014a) identified a thrust fault bisecting the site striking northeast within the middle Atoka Formation. To date, there is no evidence that this fault provides a preferred migration pathway for site contaminants.

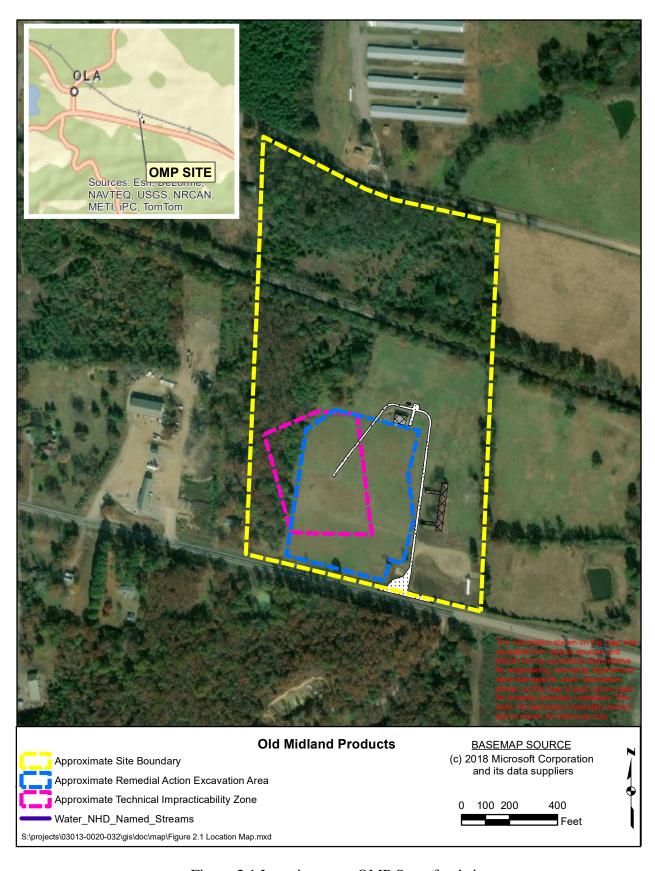


Figure 2.1 Location map, OMP Superfund site.

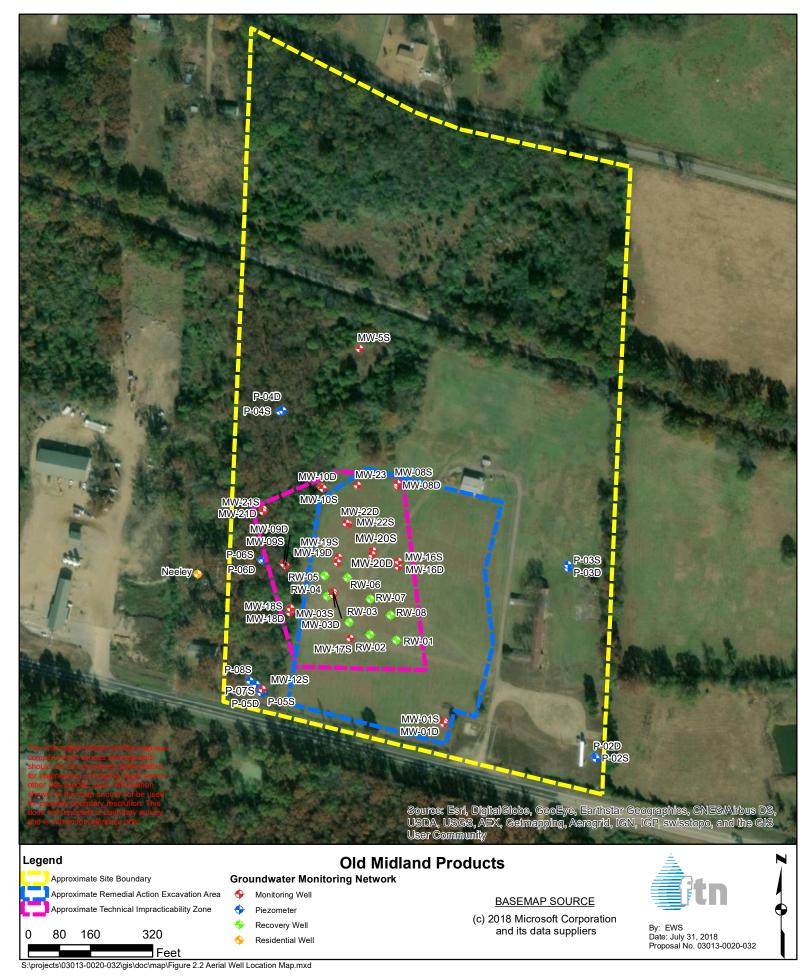


Figure 2.2 Monitoring well location map, OMP Superfund site.

3.0 GROUNDWATER MONITORING PROGRAM

3.1 Groundwater Monitoring Network

The current monitoring well network consists of 26 monitoring wells, eight recovery wells, twelve piezometers, and one private domestic well shown on Figure 2.2. Table 3.1 summarizes available information for well construction details.

Fourteen of the 26 monitoring wells and seven of the twelve piezometers are completed in the weathered shale. Wells within the weathered shale monitor the shallow portion of the aquifer and are identified with an "S" at the end of the installation name. These wells and piezometers are screened within portions of the interval occurring from 359 ft to 323 ft NAVD88, at depths less than 20 ft bgs.

Twelve monitoring wells and five piezometers are installed in the unweathered shale portion of the aquifer. Deep well installations range in total depth from approximately 35 ft bgs to 50 ft bgs and are screened within portions of the interval occurring from 337 ft to 298 ft NAVD88. Except for monitoring well MW-23, deep wells are identified with a "D" at the end of the installation name.

Recovery wells (RW-1 through RW-8) are screened across both the weathered and unweathered portions of the aquifer from approximately 341 ft to 313 ft elevation (NAVD88).

All but four monitoring wells are located within the TI Zone. Three of these wells are located upgradient of the TI Zone (MW-1S, MW-1D, and MW-12S), and one well is located downgradient of the TI Zone (MW-5S). One private domestic well is located off site, outside and downgradient from the TI Zone.

3.2 Sampling Methodology

FTN conducted groundwater sampling in accordance with EPA guidelines and the facility's Operations and Maintenance Procedures Plan (ADEQ 2011b). Sampling was conducted April 23-26, 2018. Depths to static water level in monitoring wells, recovery wells, and piezometers were gauged prior to purging and sampling. Gauging methodology is described in Section 4.1.

Table 3.1. OMP Superfund site, construction data for monitoring wells in the groundwater monitoring network.

| | Installation | Northing (ft AR State | Easting (ft AR State | TOC Elevation | Total Depth | Screen Interval | Approximate Screen | |
|-----------------|--------------|------------------------------------|------------------------------------|--------------------------|--------------------------------|-----------------|-----------------------------------|-----------------------------|
| Installation ID | Date 1 | Plane North NAD83) ² | Plane North NAD83) ² | (ft NAVD88) ² | (ft below TOC) ³ | (ft bgs) 1,4 | Elevation Interval (ft NAVD88) | Water-Bearing Zone |
| | | 111250) | 1,112,00) | N | Ionitoring W | ells | | |
| MW-1S | | 253670.42 | 951863.17 | 359.13 | 19.2 | 10 to 15 | 349.1 to 344.1 | Weathered Shale |
| MW-3S | | 254001.88 | 951582.10 | 351.03 | 24.1 | 15 to 20 | 336.0 to 331.0 | Weathered Shale |
| MW-5S | 10/13/1986 | 254632.41 | 951655.92 | 341.95 | 20.6 | 12 to 17 | 330.0 to 325.0 | Weathered Shale |
| MW-8S | 10/21/1986 | 254285.91 | 951748.87 | 347.22 | 22.4 | 7.5 to 17.5 | 339.7 to 329.7 | Weathered Shale |
| MW-9S | 10/18/1986 | 254079.15 | 951459.50 | 348.52 | 20.3 | 5 to 20 | 343.5 to 328.5 | Weathered Shale |
| MW-10S | 10/19/1986 | 254275.16 | 951558.16 | 343.02 | 20.4 | 5 to 20 | 338.0 to 323.0 | Weathered Shale |
| MW-12S | 11/1/1986 | 253761.11 | 951400.42 | 354.92 | 24.9 | 10 to 20 | 344.9 to 334.9 | Weathered Shale |
| MW-16S | | 254072.24 | 951755.13 | 353.71 | 30.0 | 10 to 20 | 343.7 to 333.7 | Weathered Shale |
| MW-17S | | 253890.36 | 951626.76 | 351.27 | 25.5 | 10 to 20 | 341.3 to 331.3 | Weathered Shale |
| MW-18S | | 253968.69 | 951474.29 | 349.88 | 26.5 | 10 to 20 | 339.9 to 329.9 | Weathered Shale |
| MW-19S | | 254097.88 | 951597.03 | 350.75 | 26.9 | 10 to 20 | 340.8 to 330.8 | Weathered Shale |
| MW-20S | | 254114.70 | 951685.34 | 352.27 | 31.3 | 10 to 20 | 342.3 to 332.3 | Weathered Shale |
| MW-21S | 9/23/2006 | 254213.13 | 951406.72 | 347.04 | 27.1 | 14.7 to 24.7 | 332.3 to 322.3 | Weathered Shale |
| MW-22S | 9/24/2013 | 254183.09 | 951622.85 | 350.57 | 27.1 | 14.7 to 24.7 | 335.9 to 325.9 | Weathered Shale |
| MW-1D | | 253675.19 | 951864.85 | 358.66 | 44.0 | 36 to 41 | 322.7 to 317.7 | Unweathered Shale |
| MW-3D | | 254009.27 | 951583.70 | 350.43 | 38.7 | 25 to 35 | 325.4 to 315.4 | Unweathered Shale |
| MW-8D | 10/28/1986 | 254279.40 | 951748.92 | 348.48 | 44.3 | 27.5 to 37.5 | 321.0 to 311.0 | Unweathered Shale |
| MW-9D | 10/18/1986 | 254074.28 | 951463.24 | 349.18 | 42.8 | 27.5 to 37.5 | 321.7 to 311.7 | Unweathered Shale |
| MW-10D | 10/20/1986 | 254278.85 | 951552.77 | 343.57 | 37.3 | 25.5 to 35.5 | 318.1 to 308.1 | Unweathered Shale |
| MW-16D | 9/24/2006 | 254074.17 | 951750.36 | 353.32 | 42.1 | 30 to 40 | 323.3 to 313.3 | Unweathered Shale |
| MW-18D | | 253957.57 | 951472.79 | 350.29 | 39.6 | 25 to 35 | 325.3 to 315.3 | Unweathered Shale |
| MW-19D | | 254084.23 | 951594.01 | 351.05 | 39.9 | 25 to 35 | 326.1 to 316.1 | Unweathered Shale |
| MW-20D | | 254104.10 | 951683.59 | 352.45 | 39.2 | 25 to 35 | 327.5 to 317.5 | Unweathered Shale |
| MW-21D | 9/21/2006 | 254218.02 | 951406.55 | 346.95 | 40.9 | 34.9 to 44.9 | 312.1 to 302.1 | Unweathered Shale |
| MW-22D | 9/23/2006 | 254185.66 | 951616.89 | 350.28 | 42.1 | 30.3 to 40.3 | 320.0 to 310.0 | Unweathered Shale |
| MW-23 | 9/20/2006 | 254281.48 | 951646.64 | 348.75 | 53.4 | 39.9 to 49.9 | 308.9 to 298.9 | Unweathered Shale |
| | | | | | Piezometers | | | |
| P-2S | 9/30/1986 | 253577.47 | 952255.23 | 360.47 | 22.9 | 15 to 20 | 345.5 to 340.5 | Weathered Shale |
| P-3S | 10/14/1986 | 254073.34 | 952185.64 | 349.88 | 20.8 | 12.5 to 17.5 | 337.4 to 332.4 | Weathered Shale |
| P-4S | 10/3/1986 | 254467.75 | 951450.13 | 345.34 | 20.0 | 12.5 to 17.5 | 332.8 to 327.8 | Weathered Shale |
| P-5S | 10/15/1986 | 253751.30 | 951401.75 | 352.89 | 21.3 | 12.5 to 17.5 | 340.4 to 335.4 | Weathered Shale |
| P-6S | 10/1/1986 | 254087.52 | 951402.69 | 349.09 | 20.0 | 12.5 to 17.5 | 336.6 to 331.6 | Weathered Shale |
| P-7S | 11/1/1986 | 253771.70 | 951384.70 | 354.46 | 23.4 | 8 to 18 | 346.5 to 336.5 | Weathered Shale |
| P-8S | 11/2/1986 | 253782.64 | 951369.35 | 354.14 | 23.5 | 8 to 18 | 346.1 to 336.1 | Weathered Shale |
| P-2D | 10/1/1986 | 253582.07 | 952254.78 | 360.13 | 35.6 | 23 to 33 | 337.1 to 327.1 | Unweathered Shale |
| P-3D | 10/15/1986 | 254064.71 | 952185.82 | 350.02 | 42.2 | 28 to 38 | 322.0 to 312.0 | Unweathered Shale |
| P-4D | 10/3/1986 | 254469.89 | 951458.42 | 345.07 | 40.2 | 27 to 37 | 318.1 to 308.1 | Unweathered Shale |
| P-5D | 10/16/1986 | 253751.42 | 951395.77 | 352.35 | 40.8 | 28 to 38 | 324.4 to 314.4 | Unweathered Shale |
| P-6D | 10/2/1986 | 254090.17 | 951405.46 | 349.00 | 39.7 | 26 to 36 | 323.0 to 313.0 | Unweathered Shale |
| | | | | | Recovery Wel | lls | | |
| RW-1 | 8/25/1993 | 253883.96 | 951744.96 | 347.45 | 28.9 | 6.6 to 26.6 | 340.9 to 320.9 | Unweathered/Weathered Shale |
| RW-2 | 8/26/1996 | 253900.38 | 951677.34 | 346.94 | 28.1 | 6.5 to 26.5 | 340.4 to 320.4 | Unweathered/Weathered Shale |
| RW-3 | 8/30/1993 | 253932.73 | 951623.74 | 346.39 | 28.9 | 6.5 to 26.5 | 339.9 to 319.9 | Unweathered/Weathered Shale |
| RW-4 | 9/1/1993 | 253999.07 | 951567.67 | 345.93 | 28.5 | 6.6 to 26.6 | 339.4 to 319.4 | Unweathered/Weathered Shale |
| RW-5 | 9/2/1993 | 254051.22 | 951562.94 | 345.41 | 33.4 | 6.5 to 31.5 | 338.9 to 313.9 | Unweathered/Weathered Shale |
| RW-6 | 8/29/1993 | 254046.77 | 951620.27 | 347.17 | 28.9 | 6.6 to 26.6 | 340.6 to 320.6 | Unweathered/Weathered Shale |
| RW-7 | 8/27/1993 | 253991.77 | 951678.73 | 347.22 | 26.6 | 6.5 to 26.5 | 340.7 to 320.7 | Unweathered/Weathered Shale |
| RW-8 | 8/27/1993 | 253949.19 | 951729.75 | 347.13 | 28.3 | 6.5 to 26.5 | 340.6 to 320.6 | Unweathered/Weathered Shale |
| | | | | | Private Well | s | | |
| Neeley | | 254046.44 | 951226.65 | | 9.0 | | | |

TOC - Top of Casing.

ft bgs - feet below ground surface.

Blank cells indicate no data.

^{1.} Data are from the well installation records, boring logs, or tables provided by ADEQ.

^{2.} Harmon Surveying, Inc. Report dated October 31, 2017.

^{3.} Data are from FTN groundwater sampling events.

 $^{4. \}quad Provided \ by \ ADEQ \ (email \ communication \ with \ Charles \ Johnson, \ ADEQ \ on \ 10/21/2013).$

Wells were purged by withdrawing groundwater from depths between mid-screen and the bottom of the well using a variable-speed peristaltic pump at low-flow rates of approximately 200 mL/minute or less. Water levels were monitored during purging to minimize drawdown, where possible. Purge rates were measured with a graduated cylinder and stopwatch and recorded every three to ten minutes during purging.

The pump discharge line was connected to a flow-through cell, and field stabilization parameters were monitored to determine when formation water was being purged. Data stabilization is defined as three successive readings with variation of: $\pm 0.2^{\circ}$ C for temperature, ± 0.1 su for pH, $\pm 3\%$ μ S/cm for specific conductance, $\pm 10\%$ Nephelometric Turbidity Units (NTU) or <10 NTU for turbidity, ± 0.3 mg/L or 10% for DO (whichever is greater), and ± 20 mV or 10% for ORP (whichever is greater). Instruments used to collect field measurements included a MicroTPW turbidity meter and a YSI Pro Plus multimeter inserted into the flow-through cell. Measurements were documented on Groundwater Sampling Records (Appendix A). Groundwater samples were collected from the discharge line after field parameters stabilized and were placed directly into sample containers.

At the request of ADEQ, ferrous iron concentrations in groundwater were evaluated in the field using a HACH ferrous iron test kit. Procedures for the field analysis of ferrous iron included the collection of groundwater into a measuring vial, the addition of ferrous iron reagent powder pillow to the measuring vial, mixing the solution, and correlating the approximate color change caused by the reaction to concentrations on the color wheel included in the kit. Evaluations for ferrous iron were documented on the Groundwater Sampling Records (Appendix A).

3.3 Laboratory Analyses

As required by the amended ROD (EPA 2006) and the facility's Operations and Maintenance Procedures Plan (ADEQ 2011b), groundwater samples are analyzed for PCP, PAHs, field parameters, and other parameters related to MNA or requested by ADEQ in FTN's Scope of Work (Table 3.2). Appendix B contains laboratory data reports.

Table 3.2. Groundwater monitoring constituents for OMP.

| EPA ROD (2006) Constituent | ADEQ (2011) Operations and Maintenance Plan Constituent | ADEQ (2017) Requested Constituent |
|-------------------------------|--|--------------------------------------|
| Pentachlorophenol (PCP) | Pentachlorophenol (PCP) | Pentachlorophenol (PCP) |
| Acenaphthene | Acenaphthene | Acenaphthene |
| Acenaphthylene | Acenaphthylene | Acenaphthylene |
| Anthracene | Anthracene | Anthracene |
| Benzo(a)anthracene | Benzo(a)anthracene | Benzo(a)anthracene |
| Benzo(a)pyrene | Benzo(a)pyrene | Benzo(a)pyrene |
| Benzo(b)fluoranthene | Benzo(b)fluoranthene | Benzo(b)fluoranthene |
| Benzo(g,h,i)perylene | Benzo(g,h,i)perylene | Benzo(g,h,i)perylene |
| Benzo(k)fluoranthene | Benzo(k)fluoranthene | Benzo(k)fluoranthene |
| Chrysene | Chrysene | Chrysene |
| Fluoranthene | Fluoranthene | Fluoranthene |
| Fluorene | Fluorene | Fluorene |
| Indeno(1,2,3)pyrene | Indeno(1,2,3)pyrene | Indeno(1,2,3)pyrene |
| Naphthalene | Naphthalene | Naphthalene |
| Phenanthrene | Phenanthrene | Phenanthrene |
| Pyrene | Pyrene | Pyrene |
| | Dibenzo(a,h)anthracene | Dibenzo(a,h)anthracene |
| | Nitrate | Nitrate |
| | Sulfate | Sulfate |
| | Alkalinity | Alkalinity |
| | Chloride | Chloride |
| | Fluoride | |
| | Total Organic Carbon | Total Organic Carbon |
| | Specific Conductance** | Specific Conductance** |
| | pH** | pH** |
| | Turbidity** | Turbidity** |
| | Oxidation Reduction Potential** | Oxidation Reduction Potential** |
| | Temperature** | Temperature** |
| | Dissolved Oxygen** | Dissolved Oxygen** |
| | | Carbazole |
| | | Total Iron |
| | · · | Ferrous Iron** |

^{**}Field parameters.

3.4 Investigation Derived Waste (IDW) Management

Purge water and decontamination water from the spring 2018 groundwater monitoring event were containerized in two separate 55-gallon DOT drums and staged northwest of the on-site propane tank. All personal protective equipment, disposable sampling equipment, and general refuse were disposed as municipal waste. FTN is coordinating removal of IDW drums,

and waste manifest and disposal documentation will be provided to ADEQ upon receipt for inclusion in Appendix C.

4.0 WATER LEVEL DATA

This section presents water level data for the spring 2018 monitoring event and discusses groundwater flow direction and rate of groundwater flow. Historical water level data is included as Appendix D.

4.1 Water Level and NAPL Measurements

Before sampling, static water levels were measured in monitoring wells, piezometers, and recovery wells with an interface probe to determine the level to maintain during purging, to contour the potentiometric surface, and to determine the hydraulic gradient. FTN gauged and recorded water levels on April 23, 2018. Depths to water were measured to the nearest 0.01 ft from the top of casing. Where NAPL was present, an interface probe was used to determine the depth to NAPL from the top of casing. Table 4.1 presents water level and NAPL data for the sampling period.

Historically, artesian conditions have been noted in the southwest portion of the site (USEPA 1988), and during the current sampling event, artesian conditions were observed at P-5S and P-5D. Well vaults were flooded at RW-2, RW-3, RW-4, RW-5, RW-6, RW-7, and RW-8, which prohibited the collection of water level data and NAPL measurements at these locations during the round of initial depth to water measurements across the site. Water levels in RW-06 and RW-7 vaults later decreased enough to allow access to the wells, and NAPL was observed at RW-7 during groundwater sampling.

4.2 Groundwater Flow Direction

The weathered and unweathered shale layers are together a single water bearing zone (USEPA 2006), however, consistent with past groundwater monitoring reports, water level data were used to construct potentiometric maps for both the weathered shale and unweathered shale portions of the aquifer (Figure 4.1). Available data from recovery wells is used to develop the potentiometric surface map for the weathered shale.

Table 4.1 NAPL and groundwater elevation data, OMP, April 23, 2018.

| Well ID | Casing Elevation (ft NAVD88) ¹ | Date | Depth to Water (ft below TOC) | Depth to NAPL (ft below TOC) | Groundwater Elevation (ft NAVD88) | Total Depth (ft below TOC) |
|------------------|--|------------------------|-------------------------------|------------------------------|---|-------------------------------|
| RW-1 | 347.47 | 4/23/2018 | 0.06 | Obs. NAPL | 347.41 | 28.95 |
| RW-2 | 346.94 | 4/23/2018 | NM - flooded | NM - flooded | n/a | NM |
| RW-3 | 346.39 | 4/23/2018 | NM - flooded | NM - flooded | n/a | NM |
| RW-4 | 345.93 | 4/23/2018 | NM - flooded | NM - flooded | n/a | NM |
| RW-5 | 345.41 | 4/23/2018 | NM - flooded | NM - flooded | n/a | NM |
| RW-6 | 347.17 | 4/23/2018 | NM - flooded | | n/a | NM |
| RW-7 | 347.22 | 4/23/2018 | NM - flooded | Obs. NAPL | n/a | NM |
| RW-8 | 347.13 | 4/23/2018 | NM - flooded | NM - flooded | n/a | NM |
| MW-1S | 359.13 | 4/23/2018 | 4.75 | NM | 354.38 | 19.15 |
| MW-1D | 358.66 | 4/23/2018 | 3.89 | NM | 354.77 | 44.00 |
| MW-3S | 351.03 | 4/23/2018 | 6.38 | | 344.65 | 24.11 |
| MW-3D | 350.43 | 4/23/2018 | 4.14 | Obs. NAPL | 346.29 | 38.55 |
| MW-5S | 341.95 | 4/23/2018 | 4.62 | | 337.33 | 20.50 |
| MW-8S | 347.22 | 4/23/2018 | 5.31 | | 341.91 | 22.42 |
| MW-8D | 348.48 | 4/23/2018 | 6.76 | | 341.72 | 44.28 |
| MW-9S | 348.52 | 4/23/2018 | 5.32 | | 343.20 | 20.36 |
| MW-9D | 349.18 | 4/23/2018 | 3.75 | | 345.43 | 42.90 |
| MW-10S | 343.02 | 4/23/2018 | 1.70 | | 341.32 | 20.36 |
| MW-10D | 343.57 | 4/23/2018 | 2.11 | | 341.46 | 37.36 |
| MW-10D MW-12S | 354.92 | 4/23/2018 | 2.16 | NM | 352.76 | 24.88 |
| MW-16S | 353.71 | 4/23/2018 | 6.41 | 1NIVI | 347.30 | 30.43 |
| MW-16D | 353.71 | 4/23/2018 | 7.53 | | 345.79 | 42.03 |
| MW-10D | 351.27 | 4/23/2018 | 3.24 | | 348.03 | 25.50 |
| MW-18S | 349.88 | 4/23/2018 | 3.42 | | 346.46 | 26.52 |
| MW-18D | 350.29 | 4/23/2018 | 5.21 | | 345.08 | 39.56 |
| MW-18D MW-19S | 350.75 | 4/23/2018 | 6.46 | | 344.29 | 26.87 |
| II . | | | 5.43 | | l | |
| MW-19D | 351.05 | 4/23/2018 4/23/2018 | 6.74 | | 345.62 | 40.04 |
| MW-20S MW-20D | 352.27 | | | | 345.53 | 31.22 |
| MW-20D MW-21S | 352.45 347.04 | 4/23/2018 | 6.66 5.06 | | 345.79 | 39.18 27.09 |
| ll . | | 4/23/2018 | | | 341.98 | |
| MW-21D | 346.95 | 4/23/2018 | 4.56 | | 342.39 | 46.95 |
| MW-22S | 350.57 | 4/23/2018 | 7.78 | | 342.79 | 27.14 |
| MW-22D | 350.28 | 4/23/2018 | 5.47 | | 344.81 | 42.22 |
| MW-23 | 348.75 | 4/23/2018 | 7.49 | NIM | 341.26 | 52.30 |
| P-2S | 360.47 | 4/23/2018 | 4.07 | NM NM | 356.40 | 22.84 |
| P-2D | 360.13 | 4/23/2018 | 4.26 | NM NM | 355.87 | 35.60 |
| P-3S | 349.88 | 4/23/2018 | 1.06 | NM NM | 348.82 | 20.81 |
| P-3D | 350.02 | 4/23/2018 | 3.70 | NM NM | 346.32 | 42.21 |
| P-4S | 345.34 | 4/23/2018 | 4.90 | NM | 340.44 | 20.04 |
| P-4D | 345.07 | 4/23/2018 | 4.74 | ND (| 340.33 | 28.16** |
| P-5S | 352.89 | 4/23/2018 | 0.00* | NM NM | 352.89* | 14.08 |
| P-5D | 352.35 | 4/23/2018 | 0.00* | NM | 352.35* | 40.80 |
| P-6S | 349.09 | 4/23/2018 | 5.72 | | 343.37 | 13.15 |
| P-6D | 349.00 | 4/23/2018 | 3.31 | | 345.69 | 39.71 |
| P-7S | 354.46 | 4/23/2018 | 1.44 | NM | 353.02 | 23.36 |
| P-8S | dwater conditions, gro | 4/23/2018 | 1.10 | NM | 353.04 | 23.55 |

^{*} Artesian groundwater conditions, groundwater elevation is a minimum.

NM = Not measured.

⁻⁻⁻ = No product observed or measured.

NAPL = Non-aqueous phase liquid.

Obs. NAPL = NAPL residue observed on probe or water surface during field measurements, but not detected by interface probe.

TOC = Top of casing.

^{1.} Harmon Surveying, Inc. Report dated October 31, 2017.

^{**} Not consistent with previous measurements. May indicate well casing obstruction.

As shown on Figure 4.1, water level data from the shallow wells indicates that groundwater flows to the north-northwest across the site. The configuration of the potentiometric surface within the TI Zone suggests the presence of a more northwesterly flow component that may be indicative of localized fracturing within the weathered shale, which may provide a preferential flow path for site-related contaminants. This pattern is consistent with previous observations (FTN 2018). Flow within the deeper portion of the aquifer was also generally to the north-northwest. For paired wells, nine pairs show an upward gradient and six pairs show a downward gradient (Table 4.1), generally consistent with previous results. The vertical gradient for well pair P-5S/P-5D could not be evaluated, because artesian conditions were observed at both wells.

4.3 Hydraulic Gradient and Rate of Groundwater Flow

Monitoring wells at the facility are screened in both weathered shale and unweathered shale. Variability of the water bearing lithologies at this site requires that estimated groundwater velocities be based on ranges of hydraulic conductivities for both portions of the aquifer. Both the Third Five-Year Review (ADEQ 2011a) and the USEPA ROD (USEPA 2006) describe the hydraulic characteristics of the shallow and deeper zones of the aquifer.

The groundwater flow rate (average linear velocity) was calculated using the following equation (Freeze and Cherry 1979):

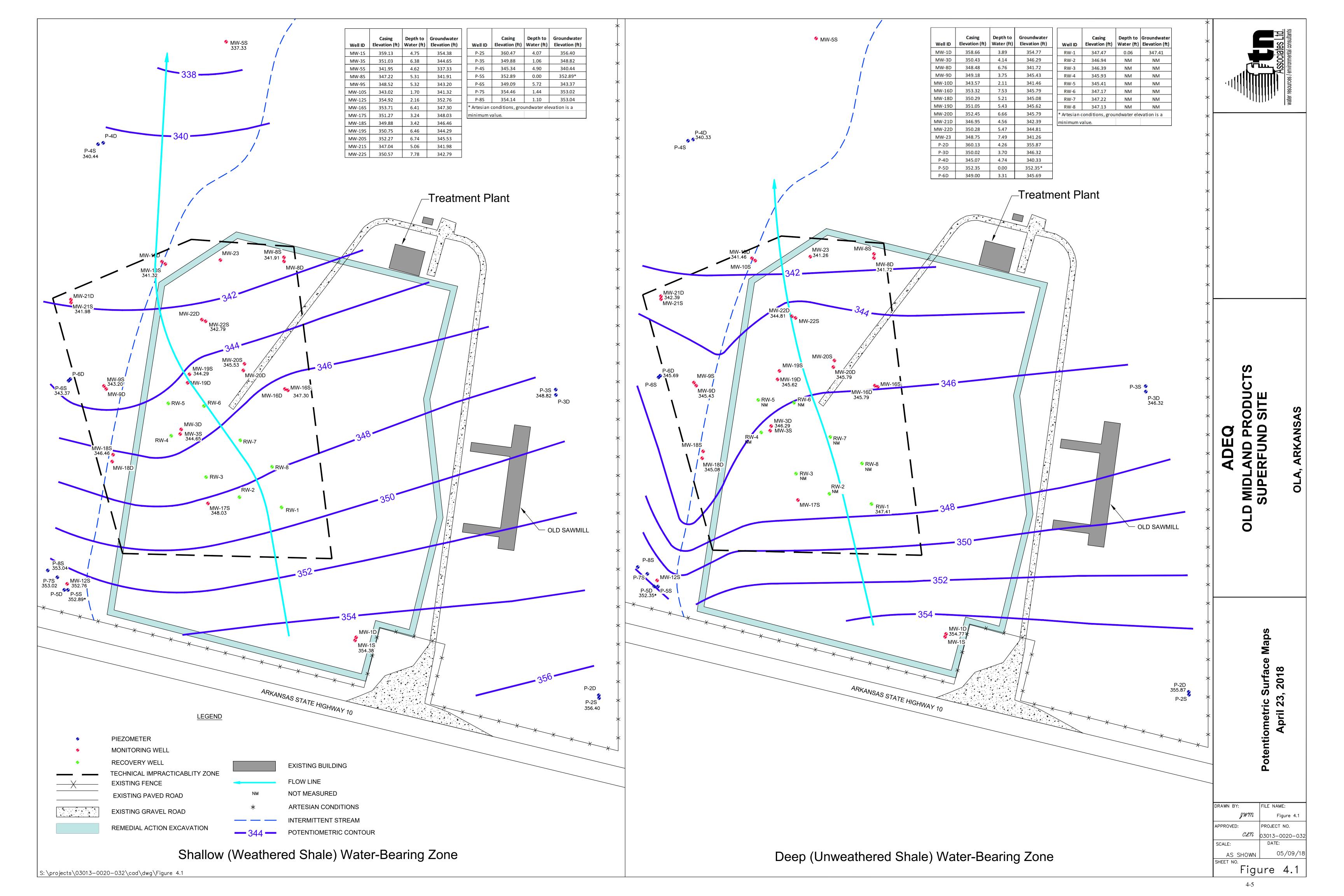
 $V_x = -K/n_e * dh/dl,$ where: $V_x =$ linear velocity,

K = hydraulic conductivity, $n_e = effective porosity, and$ dh/dl = hydraulic gradient.

The hydraulic gradient was calculated for the weathered shale portion of the aquifer using data for P-2S to P-3S and MW-12S to P-6S, with the resulting hydraulic gradients determined to be 0.0.0151 ft/ft and 0.0288 ft/ft, respectively. The rate of groundwater flow was calculated using these hydraulic gradients, a conservative hydraulic conductivity of 1.70 ft/day (USEPA

2006), and an average effective porosity of 15% (USEPA 2006). The range of groundwater velocity for the weathered shale portion of the aquifer was calculated as 0.172 ft/day to 0.326 ft/day, or approximately 63 ft/year to 119 ft/year.

The hydraulic gradient for the unweathered shale portion of the aquifer was calculated using data for P-5D to P-4D and MW-1D to MW-8D, with the resulting hydraulic gradients determined to be 0.0167ft/ft and 0.0212 ft/ft, respectively. Using these gradient values, an average hydraulic conductivity of 0.15 ft/day (ADEQ 2011a), and an effective porosity of 15% (ADEQ 2011a), a range for groundwater seepage velocity values was calculated to be 0.0167 ft/day to 0.0212 ft/day, or 6.1 ft/year to 7.7 ft/year.



5.0 DATA VALIDATION

This section presents the results of the quality control (QC) review and data validation. Based on a review of laboratory data for the current sampling period, data are considered to be valid, except as noted below. Appendix A contains field documentation, and Appendix B contains laboratory reports.

5.1 Review of Field Documentation

Field QC included documenting pertinent information during field operations and reviewing field data sheets. Based on a review of field documentation, the following observations were noted:

- While adjusting groundwater sampling purge rates during in situ parameter stabilization, the low-flow purging minimal drawdown goal (i.e., less than approximately 0.3 ft; Puls and Barcelona 1996) was frequently exceeded; however, during sample collection, after suitable pumping rates were established, water level drawdown between the end of purging and after sample collection exceeded 0.3 ft at one well (MW-9S) where water levels dropped 1.35 ft using a pumping rate of 20 mL/min. Low permeability of shale formations makes achieving the drawdown goal difficult. These results are generally consistent with results from previous sampling events.
- Turbidity levels were generally low (less than 25 NTU), except for the groundwater samples collected from MW-9S (39 NTU), MW-20S (108 NTU), and MW-21D (37 NTU). Suspended solids that contribute to turbidity could affect analytical results for metals; therefore, field-filtered samples for dissolved metals were collected at each of the three locations.
- Ferrous (Fe²⁺) iron concentrations were not recorded in the field for samples from MW-22S and RW-1.
- The Neeley residential well was noted as not having a well cap. An open well casing may affect the representativeness of groundwater samples collected from a well by allowing entry of foreign materials and/or providing direct interaction between groundwater and atmospheric conditions. Total depth measurement is shallow compared to reported installation depth, indicating a well casing obstruction.
- Vegetation, including saplings, within the perimeter of steel protective bollards complicated access to monitoring installations and may compromise installation integrity in the future.

- Fire ant mounds are commonly found near monitoring installations at the site, including occasionally overlapping recovery well vault lids. At times, fire ant activity around monitoring installations, especially when disturbed by opening or closing recovery well vault lids, could possibly be a hazard to site visitors.
- The total well depth measurement at P-4D was 28.16 ft below TOC, which is inconsistent with previous measurements approximately 40 ft below TOC, indicating a possible obstruction of the well casing.
- Artesian conditions were observed at P-5S and P-5D. While depth to water measurements have frequently been less than 1 ft below TOC at both installations, the current monitoring event is the first instance of artesian conditions reported at P-5S and the second instance at P-5D. The first at P-5D was during the spring 2017 monitoring event.
- ADEQ personnel visited the site on April 26, 2018, to observe groundwater monitoring activities.
- For pre-purge initial water level measurements at background wells and most piezometers, an interface probe was not used to check for the presence of NAPL.

5.2 Review of Laboratory Reports

ADEQ's laboratory in North Little Rock, Arkansas, provided analytical services for this project. Laboratory report "Old Midland 2018 1700-1798" (June 27, 2018) is included in Appendix B. The lab report presents results for general water quality parameters and SVOCs analyses separately, and those divisions are subdivided into sample groups. Sample groups for water quality analyses include samples 1700-1713, 1772-1784, and 1785-1798. Sample groups for SVOCs analyses include samples 1700-1708, 1709-1713 and 1772-1780, 1781-1789, and 1790-1798. Samples 1714-1771 are part of the sample range listed on the report cover, but they were not collected as part of this project and no corresponding analysis results are included in the laboratory report. Though not listed in the cover sheet comment section, samples MW-9S, MW-9D, Neeley, and IDW-1 were collected as part of this project, and analysis results for those samples are included in the laboratory report.

5.2.1 Analytical Procedures

Groundwater samples were analyzed for semi-volatile organic compounds (SVOCs) using EPA Method 3510C/EPA 8270D, total alkalinity (as CaCO₃) (EPA Method 310.2), nitrate/nitrite as N (SM 4500-NO3 F), chloride and sulfate (EPA Method 300.0), total organic carbon (TOC) (SM 5310 C), and total iron (EPA 200.8). Data validation for non-site-related parameters included within these analyses was not addressed.

5.2.2 General Data Review

The following observations with respect to reported sample results were noted during a general review of laboratory reports:

- Samples were received by the laboratory in good condition, properly preserved, properly labeled, and COC documentation was complete.
- Due to a change in laboratory reporting procedures only total or dissolved iron was reported for metals analysis results. Previously, results for all metals associated with the analytical method were reported.

• Due to a change in laboratory report formatting procedures, each SVOCs sample group now corresponds to a single batch analysis.

5.2.3 Laboratory QC Samples

Laboratory QC samples are prepared by the laboratory to evaluate the accuracy and precision of laboratory testing procedures.

5.2.3.1 Method Blanks

The primary purpose of method blank samples is to document contamination resulting from analytical processes. All laboratory method blank samples were non-detect for analyzed parameters except di-n-butyl phthalate and bis(2-ethylhexyl)phthalate. These compounds are common laboratory contaminants and were not detected in groundwater samples at concentrations greater than ten times detections blanks.

5.2.3.2 Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as a measure of the laboratory's accuracy. LCS percent recoveries were within specified limits for all site-related parameters. Where reported, LCS duplicate (LCSD) recoveries were also within limits for site-related parameters. Where LCS/LCSD comparisons were made, they were within limits for all site-related parameters except for benzo(ghi)perylene in sample group 1709-1713 and 1772-1780 and several other site-related SVOCs in sample group 1781-1789.

5.2.3.3 Surrogates, Matrix Spikes, and Matrix Spike Duplicates

Surrogates, matrix spikes (MS) and matrix spike duplicates (MSD) were analyzed to determine the effect of the sample matrix on recovery of analytes. Recoveries were frequently low for the surrogate 2,4,6-tribromophenol indicating a potential low bias for PCP and other phenols; however, there were acceptable recoveries for all analyses of 2-fluorophenol, which is also a surrogate for phenols. Surrogates for PAHs (2-fluorobiphenyl, nitrobenzene-d5, and

terphenyl-d14) showed generally acceptable recoveries. MS and MSD recoveries for site-related parameters, and MS/MSD results for site-related parameters showed good agreement.

5.2.4 Field QC Samples

Field QC samples included groundwater duplicate samples and equipment rinsate blanks. QC samples were treated as regular samples with respect to sample collection, preservation, handling and chain-of-custody (COC) procedures.

5.2.4.1 Field Duplicate Samples

Field duplicates representing approximately 10% of the sample load were submitted to the laboratory for analysis. Duplicate samples were collected from MW-12S, MW-21S, and MW-23. These samples were analyzed for duplicate comparisons, which are shown in the laboratory reports. Only those parameters that were detected at a concentration five times the reporting limit and for which neither duplicate pair result is qualified or suspected of blank contamination was considered for these comparisons. Duplicate pairs met the RPD criterion of 20% for all comparisons with the following exceptions:

- The RPD for TOC in MW-23 and its duplicate was 74%.
- "R" flagged out of range duplicate RPDs for SVOCs in the laboratory report are primarily the products of comparisons using non-detect results.

5.2.4.2 Field Equipment Blank Samples

Ten equipment blank samples (EB-1 through EB-10) were prepared in the field and submitted to the laboratory for analysis. Sample results were non-detect for all parameters analyzed, except the following:

- Di-n-octyl phthalate was detected in equipment blank EB-4 at 0.2 µg/L. This compound is a common laboratory contaminant and was non-detect in all samples associated with this blank.
- 1,3-Dichlorobenzene was detected in equipment blanks EB-3 (0.29 μg/L) and EB-5 (0.42 μg/L); however, 1,3-dichlorobenzene is not a site related compound.

- Bis(2-ethylhexyl)phthalate was detected in equipment blanks EB-8 (0.21 µg/L) and EB-10 (0.23 µg/L). This compound is a common laboratory contaminant.
- Alkalinity was detected in equipment blank EB-9 at 40.6 mg/L. Detections occurred in four samples associated with this blank (Neely well, MW-8D, MW-18D, and MW-18S), with all concentrations less than five times the concentration in the blank. Field documentation indicates EB-9 was prepared adjacent to an onsite gravel road that was being traveled by vehicles during blank preparation. Dust generated from the road, rather than cross-contamination associated with sampling equipment, is a likely source for alkalinity in the blank. Data for associated groundwater samples is not suspected of being affected and is not flagged in data summary tables. Alkalinity concentrations in monitoring wells MW-18D, MW-18S, and MW-8D are similar to historical results.

6.0 GROUNDWATER QUALITY EVALUATION

This section presents groundwater sample results from the spring 2018 sampling event. PCP, carbazole, and PAH data are discussed and compared to established cleanup levels (USEPA 2006) in Table 6.1, where applicable, and indirect evidence for natural attenuation is evaluated. SVOCs not included in the groundwater monitoring program that were detected in groundwater samples at concentrations above USEPA (May 2018) RSLs are identified. Appendix E contains a listing of historical data.

Table 6.1. OMP Superfund site, cleanup goals, USEPA (2006).

| Constituent | Cleanup Level (µg/L) |
|----------------------|-------------------------|
| PCP | 1 |
| Acenaphthene | 370 |
| Acenaphthylene | 940 |
| Anthracene | 800 |
| Benzo(a)anthracene | 0.2 |
| Benzo(a)pyrene | 0.2 |
| Benzo(b)fluoranthene | 0.2 |
| Benzo(g,h,i)perylene | 470 |
| Benzo(k)fluoranthene | 0.92 |
| Chrysene | 9.2 |
| Fluoranthene | 1500 |
| Fluorene | 240 |
| Indeno(1,2,3)pyrene | 0.2 |
| Naphthalene | 6.2 |
| Phenanthrene | 470 |
| Pyrene | 180 |

6.1 Pentachlorophenol

Table 6.2 summarizes results of PCP analyses. PCP was detected at a concentration exceeding the established cleanup level of 1 μ g/L in monitoring well MW-3S (799 μ g/L), which is the highest concentration in the well since October 2014 (Appendix E, Table E.1). There appears to be a reasonable agreement between PCP concentrations and groundwater temperature fluctuations in the well, suggesting environmental factors affect observed concentrations during individual monitoring events (Figure 6.1). PCP concentrations in this well have been relatively stable since the pump and treat system was deactivated in 2006.

Table 6.2. Summary of PCP, carbazole, and PAHs detected in groundwater, OMP Superfund site, spring 2018.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | _ | | | | | _ | — |
|--------------------------------|----------|----------|-----------|-------------------|-----------|-----------|-----------|-----------|--------------------|-----------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-------------------|-----------|-----------|-------------------|-----------|-----------|-----------|-----------|-------------------|-------------|------------|------|-----|------|-------------------|-----------|------|--------------------|
| *HA¶ lgjoT | (ng/L) | 1 | 0 | 0 | 16.2 | 277 | 0 | 0 (| 0 0 | 0 0 | 0 0 | 0 | 0 | 0 | 0 | 1.75 | 0 | 0 | 0 | 3.10 | 2.99 | 0 | 0 | 0 | 0 | 0 0 | 2 5 | į i | I | i | I | 000 | 50 | I | 0 |
| Benzo [g,h,i] perylene | (µg/L) | 470 | <0.2 | <0.2 | ζ, | 7 | <0.2 | <0.7 | 7.0 | 7.07 | 2.0 2.0 2.0 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.7 | 0.2 0.5 | ا ا | 7 | - 1 | ! | 1 | <0.2 | 7 | I | <0.2 |
| * эпээвтийлв [А,в] oznэdiQ | (µg/L) | 1 | <0.2 | <0.2 | ? | 7 | <0.2 | <0.5 | 20.5 | 7.0 | <0.5 <0.5 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.7 | 0.2 0.2 0.2 | ب ا ا | 7 | | ! | ! | <0.2 | 7 | ! | <0.2 |
| 50-5,2,1] onsbnl | (hg/L) | 0.2 | <0.2 | <0.2 | ? | 7 | <0.2 | <0.7 | 7.0 | 7.0.7 | 20.2 0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.2 0.2 | ; (| 7 | ı | i | 1 | <0.2 | ; 7 | i | <0.2 |
| Benzo [3] pyrene | ng/L) | 0.2 | <0.2 | <0.2 | Ç' ' | 7 | <0.2 | <0.5 | 7.0.5 | 7.0.7 | 2.0 2.0 2.0 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 20.5 5 0.2 | 2.0.5 | t.:4 | | ! | 1 | <0 > | 77 | 1 | <0.2 |
| Benzo [k] fluoranthene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Вепхо [b] Пиогап є ћепе | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | _ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Сһгузепе | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzo [a] anthracene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ругепе | (µg/L) | 180 | <0.2 | <0.2 | 7 | 8.23 | <0.2 | <0.2 | <0.2 0.2 0.2 | 7.07 | 20.2 C 0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.38 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.2 20.5 | 2.0.5 | 1.57 | 1 | 1 | 1 | <0.2 | ; 4 | 1 | <0.2 |
| Fluoranthene | (hg/L) | 1500 | <0.2 | <0.2 | 2.61 | 5.06 | <0.2 | <0.5 | 7.0 | 7.0 | <0.5 <0.5 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 92.0 | 0.42 | <0.2 | <0.2 | <0.2 | <0.7 | 0.5 | 1.00 | · | . | i | 1 | <0.2 | 77 | 1 | <0.2 |
| эпээгицти | (hg/L) | 1800 | <0.2 | <0.2 | ۶ ک | 8.75 | <0.2 | <0.5 | 7.0 | 7.0 | <0.5 <0.5 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.7 | 0.5 | 2.00 | | 1 | ŀ | 1 | <0.2 | . 7 | 1 | <0.2 |
| Рһепапұһтепе | (hg/L) | 470 | <0.2 | <0.2 | 2.49 | 108 | <0.2 | <0.7 | 7.0 | 7.0 | 2.0 20 0 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.33 | 0.87 | <0.2 | <0.2 | <0.2 | <0.2 | 0.5 0.2 | 2.0.7 | t: 10 | ı | i | ı | <0.2 | \$ 0 | ı | <0.2 |
| Асепарһtһуһепе | (mg/L) | 940 | <0.2 | <0.2 | Q : | 4.3 | <0.2 | <0.7 | 7.0 | 7.0 | 2.0 20 0 0 2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.2 0.2 0.2 | ; ? ? | ' 1 | ı | i | ı | <0.2 | ; 7 | ı | <0.2 |
| onoledthqqsV | (ng/L) | 6.2 | <0.2 | <0.2 | 4.01 | 141 | <0.2 | <0.2 | 7.0> | 7.0, | 2.0 20.0 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 20.5 50.2 | 7.0.5 | /t:7 | | ! | 1 | <0.2 | 7. 7 | ! | <0.2 |
| Асепарћећене | | 370 | | | | | | | 7.0 | | | | | <0.2 | <0.2 | | | | | | | | | | | 20.5 | | to | 1 | ! | | <0.2 | 45.5 | 1 | <0.2 |
| | _ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | • | • | | |
| | _ | | | | | | | | 7.0> | | | | | | <0.2 | | | <0.2 | | 99.0 | | | | | | <0.2 | | | 1 | ; | | 000 | , | 1 | <0.2 |
| *Sarbazole | (µg/L) | - | <0.2 | <0.2 | 2.89 | ζ, | <0.2 | <0.2 | 2.0> | 7.0 > | 2.0 > | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.7 | <0.2 CO.2 | 1.0. | 15.61 | 1 | ! | 1 | 0 > | ; ₽ | 1 | <0.2 |
| Pentachlorophenol | (µg/L) | 1 | √1 | $\overline{\vee}$ | 799 | <10 | ⊽ . | √ - | √ √ | 7 7 | 7 7 | 7 7 | √ | ∇ | $\overline{\lor}$ | $\overline{\lor}$ | ∇ | $\overline{\vee}$ | ∇ | ∇ | $\overline{\vee}$ | ∇ | ⊽ | ⊽ ' | √ . | √ √ | 7 7 | 7 | . | 1 | 1 | $\overline{\vee}$ | <10 | ŀ | ~ |
| Date | Sampled | s (µg/L) | 4/25/2018 | 4/25/2018 | 4/26/2018 | 4/26/2018 | 4/25/2018 | 4/26/2018 | 4/26/2018 | 1/24/2018 | 4/24/2018 | 1/24/2018 | 4/24/2018 | 4/24/2018 | 4/24/2018 | 4/25/2018 | 4/26/2018 | 4/26/2018 | 4/25/2018 | 4/25/2018 | 4/24/2018 | 4/24/2018 | 4/23/2018 | 4/23/2018 | 4/23/2018 | 4/24/2018 | 4/25/2018 | NS | S S | SN | SZ. | 4/25/2018 | 4/25/2018 | NS | Neeley 4/26/2018 < |
| = | s | Lev | | | • | • | • | • | 4 | • | | | 7 | , | • | | - | • | 7 | 4 | 4 | 4 | 7 | • | 4 | | | | 1 1 | 4 | ζ-, | | | | ley 4, |
| Well | <u>e</u> | Clea | MW-1S | MW-1D | MW-3S | MW-3D | MW-5S | WW-8S | MW-8D | CK-WIM | MW-10S | MW-10D | MW-12S | MW-16S | MW-16D | MW-17S | MW-18S | MW-18D | MW-19S | MW-19D | MW-20S | MW-20D | MW-21S | MW-21D | MW-22S | MW-22D | DW 1 | RW-2 | RW-3 | RW4 | RW-5 | RW-6 | RW-7 | RW-8 | Neeley |

* No established site cleanup level. $NS = Not \ sampled.$ $NR = Not \ Reported.$

6.2 Polycyclic Aromatic Hydrocarbons

Table 6.2 summarizes results of PAH analyses for the spring 2018 monitoring event. PAHs were detected in three shallow monitoring wells (MW-3S, MW-17S and MW-20S), two deep wells (MW-3D and MW-19D), and in two recovery wells (RW-1 and RW-7). NAPL was observed at MW-3D, RW-1, and RW-7. Twelve PAH compounds were detected in groundwater samples, but only naphthalene in MW-3D and benzo[a] anthracene, benzo[k]fluoranthene, and benzo[a]pyrene in RW-1 were reported at concentrations exceeding cleanup levels (Figure 6.2). The highest total PAH concentrations occurred at MW-3D (577 μg/L) recovery well RW-1 (441 μg/L), and recovery well RW-7 (50 μg/L).

While total PAH concentrations in MW-3D have recently been below 500 μ g/L, higher concentrations are not atypical over the full sampling history of the well. Spring 2018 PAH concentrations in RW-1 are a historic high since remediation pumping ended.

Total PAH values for shallow and deep wells are shown in red and blue, respectively, on Figure 6.2. The spatial distributions of individual PAH parameter data are not typically amenable to isopleth mapping; however, Figure 6.3 is an isopleth map of acenaphthene based on a limited dataset for deep wells. Acenaphthene distribution in groundwater is consistent with fluoranthene mapped in the fall of 2017 (FTN 2018). Despite exceedances of site cleanup levels and high total PAH concentrations in MW-3D and RW-1, concentrations are slightly lower than the previous sampling event for many PAH compounds, and generally consistent with historical observations.

6.3 Carbazole

Though not a PAH compound composed solely of hydrogen and carbon atoms, carbazole ($C_{12}H_9N$) has been included for analysis at the site due to its use in creosote mixtures. Carbazole was detected in MW-3S (2.89 μ g/L), and RW-1 (15.6 μ g/L) during the current monitoring event (Table 6.2), which is consistent with historical data (Appendix E, Table E.1). There is no established site cleanup level for carbazole or applicable USEPA (May 2018) RSL.

6.4 Other SVOCs

Detected SVOCs contained in laboratory reports but not listed with site-specific groundwater monitoring constituents included:

- Dibenzofuran was detected in 6 of 29 analyzed samples and exceeded the tapwater screening level of 0.79 μg/L in MW-3S (2.95 μg/L), MW-3D (108 μg/L), MW-20S (0.95), RW-1 (106 μg/L), and RW-7 (14.1 μg/L), coinciding with locations where concentrations of site-related PAHs are highest. Dibenzofuran is commonly associated with wood preserving activities.
- 2-Methylnaphthalene exceeded its tapwater screening level of 3.6 μg/L in MW-3D (136 μg/L). 2-Methylnaphthalene is commonly associated with wood preserving activities.
- Benzyl alcohol was reported at low concentrations in eight groundwater samples.
 Typical uses of this compound are not related to wood treatment processes, and it is unlikely that detections of this compound are site-related. There is no USEPA (May 2018) screening level for benzyl alcohol.
- 1,3-Dichlorobenzene was detected in ten groundwater samples. Typical uses of this compound are not related to wood treatment processes, and it is unlikely that detections of this compound are site-related. There is no USEPA (May 2018) screening level for 1,3-dichlorobenzene.
- 4-Nitrophenol and 4-bromophenylphenyl ether were detected in MW-8S (0.81 μg/L) and MW-3S (4.37 μg/L), respectively. Typical uses of these compounds are not related to wood treatment processes, and it is unlikely that detections of these compounds are site-related. There are no USEPA (May 2018) screening levels for 4-nitrophenol or 4-bromophenylphenyl ether.
- 2,3,4,6-tetrachlorophenol (TeCP) was detected in groundwater sample MW-3S (17.4 μg/L) and exceeded the USEPA (May 2018) screening level of 2.4 μg/L. TeCP is a PCP breakdown product, and it is also a component of some wood treatment chemical formulations. Historically, TeCP has not been considered an indication of PCP degradation.
- Three phthalate ester compounds; di-n-butyl phthalate, di-n-octyl phthalate, and bis(2-ethylhexyl)phthalate, were detected in groundwater samples. Bis(2-ethylhexyl)phthalate was detected in equipment blank samples, and di-n-butyl phthalate and bis(2-ethylhexyl)phthalate were detected in laboratory method blanks. Phthalate esters are considered common laboratory contaminants by USEPA. Their concentrations in groundwater samples were below the EPA RSLs for tapwater and do not affect analysis of groundwater data.

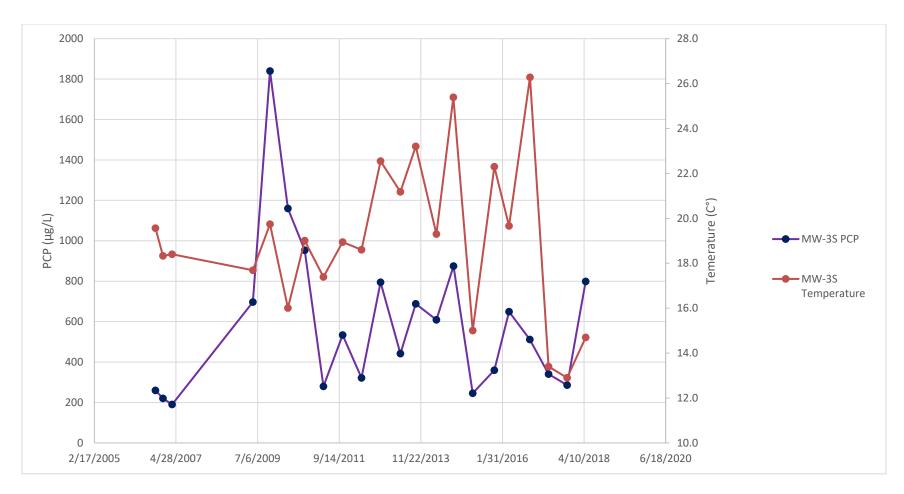


Figure 6.1. PCP concentration and temperature fluctuation pattern correlation in MW-3S.

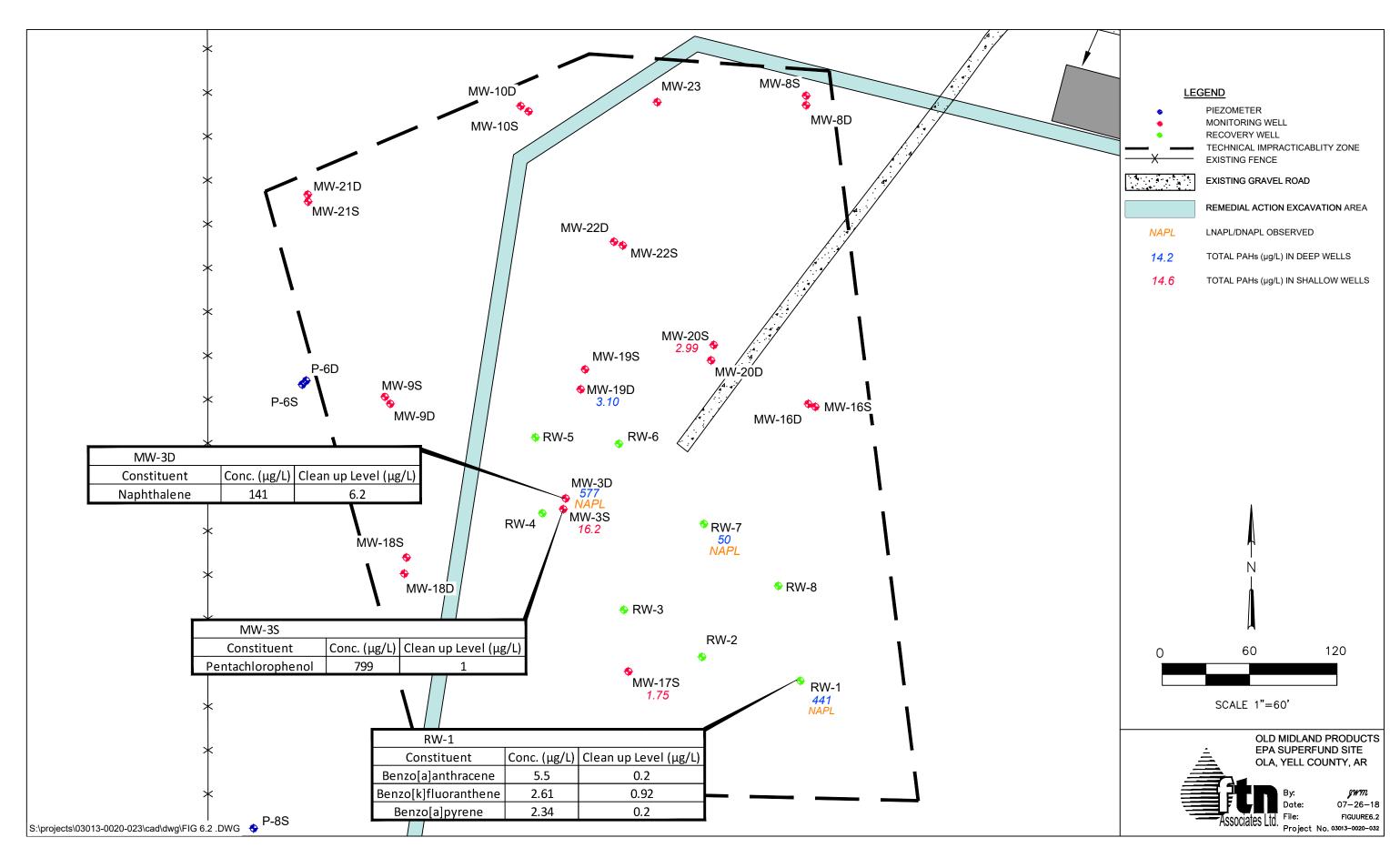


Figure 6.2 PAHs and PCP in groundwater exceeding cleanup levels.

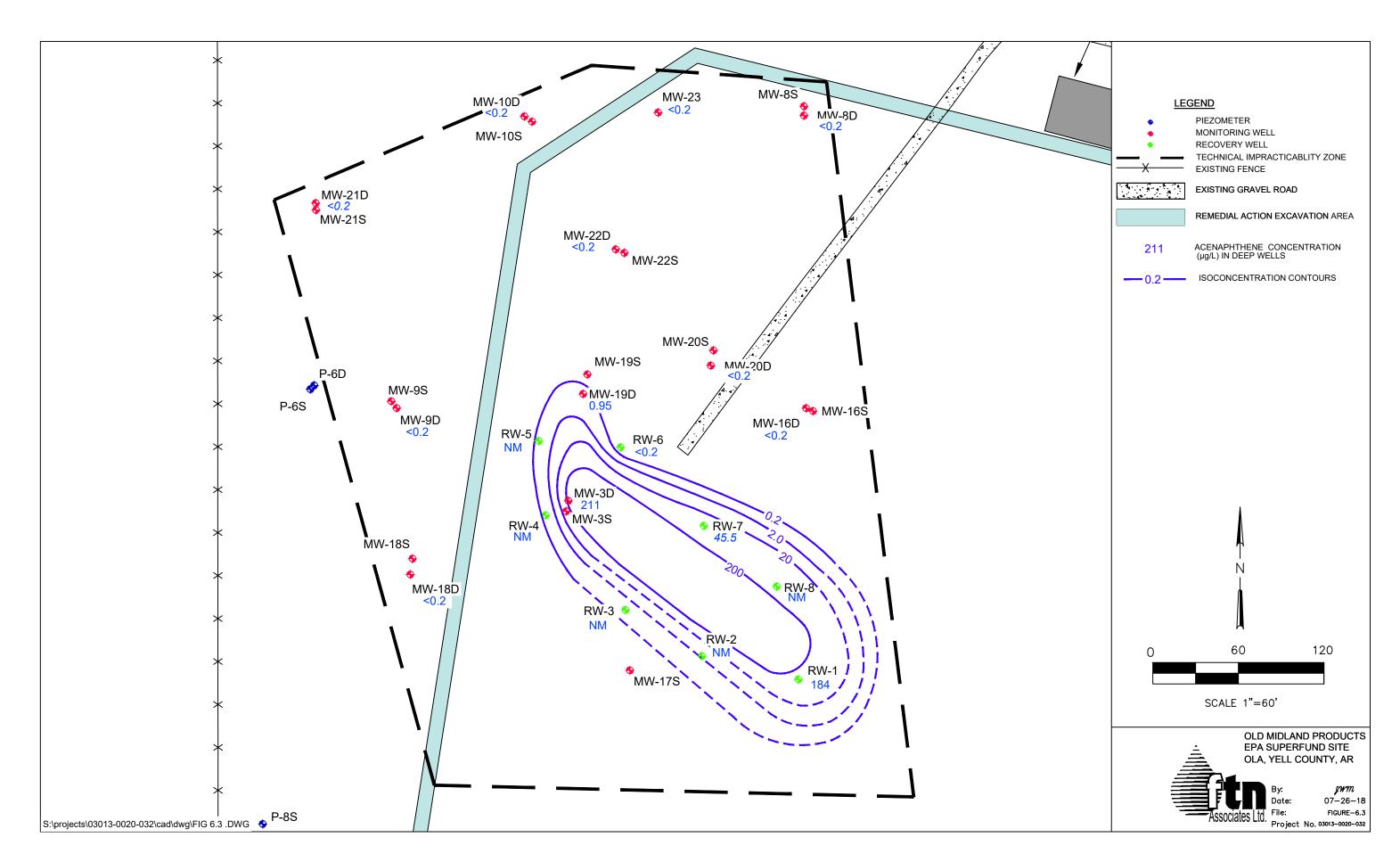


Figure 6.3 Acenaphthene distribution in unweathered shale.

7.0 INDICATIONS OF NATURAL ATTENUATION

MNA remediation relies on the capacity of the groundwater system to reduce contaminant concentrations. Attenuation processes can include biodegradation, dispersion, dilution, and adsorption of contaminants. The main processes affecting attenuation of PCP and PAH compounds are adsorption (in porous media) and biodegradation. PCP has been observed to degrade anaerobically by reductive dechlorination, a biologically mediated dismantling of the PCP molecule to ultimately produce chloride and carbon dioxide.

PAH compounds may degrade biologically both aerobically and anaerobically (Neuhaeuser et al. 2009). Compounds with low molecular weights (those with two and three rings) such as naphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, fluoranthene, and phenanthrene degrade slowly; however, degradation of these compounds occurs more readily than the four-, five- and six-ring PAHs (pyrene, benzo(a)anthracene, chrysene, benzo(a)fluoranthene, benzo(a)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene, and indeno(1,2,3)pyrene) (Davis and Evans 1964). In addition, the higher molecular weight PAH compounds are less water soluble and less volatile, and they are known to be persistent in the environment for longer periods.

This section discusses lines of evidence for degradation of organic contaminants in site groundwater, including general groundwater conditions, changes in groundwater geochemistry in the affected area, presence of degradation byproducts, and trends in contaminant concentrations. Table 7.1 contains a summary of MNA parameter data for the spring 2018 monitoring event.

7.1 General Groundwater Conditions

Field groundwater parameters can be used to evaluate conditions amenable to natural attenuation processes. During the spring 2018 groundwater monitoring event, favorable groundwater conditions for natural attenuation were observed in both shallow and deep TI zone wells.

Table 7.1. Summary of MNA parameters, OMP Superfund site, spring 2018.

| | | | ction (P) | ygen | e as N | nese | nganese | | а | ed (Fe2+) | (e3+) | | | ity [as | 9 | loi | henol | henol |
|------------|------------------|------|-------------------------------------|--------------------------|----------------------|-----------------|---------------------|------------|----------------|--|---------------------------------|----------|----------|--------------------------------|-------------------------|----------------|--------------------|--------------------|
| | a | Hd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Estimated Ferrous Iron (Fe2+) | Estimated Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol |
| Well ID | Sampling Date | (SU) | (mVs) | ⊖ ⊂ (mg/L) | Z (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | 田 庄 (mg/L) | ∞ (mg/L) | (mg/L) | (mg/L) | (mg/L) | < (μg/L) | ~i` (μg/L) | ~i (μg/L) |
| MW-1S | 4/25/2018 | 5.5 | 181 | 2.3 | 0.238 | (IIIg/L) | (IIIg/L) | 0.0229 | (IIIg/L) | <0.5 | n/a | 2 | 43.4 | 21.2 | <1 | <0.2 | <0.2 | <0.2 |
| MW-1D | 4/25/2018 | 7.0 | 40 | 2.7 | 0.106 | | | 0.205 | | < 0.5 | n/a | 1 | 6.38 | 173 | <1 | < 0.2 | <0.2 | <0.2 |
| MW-3S | 4/26/2018 | 6.2 | -176 | 1.0 | < 0.05 | | | 5.80 | | 2.0 | 3.80 | 854 | 435 | 510 | 8.73 | <2 | <2 | <2 |
| MW-3D | 4/26/2018 | 6.8 | -174 | 0.4 | < 0.05 | | | 5.23 | | 1.5 | 3.73 | < 0.5 | 108 | 160 | 2.44 | <2 | <2 | <2 |
| MW-5S | 4/25/2018 | 6.5 | 102 | 0.3 | < 0.05 | | | 0.00931 | | < 0.5 | n/a | 29 | 35.1 | 184 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-8S | 4/26/2018 | 5.6 | -171 | 0.7 | 0.198 | | | 0.0634 | | < 0.5 | n/a | 261 | 74.6 | 57.1 | 1.16 | < 0.2 | < 0.2 | < 0.2 |
| MW-8D | 4/26/2018 | 7.5 | 66 | 1.8 | 0.139 | | | 0.362 | | < 0.5 | | 24 | 20.1 | 186 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-9S | 4/24/2018 | 6.2 | 106 | 2.2 | < 0.05 | | | | 0.129 | < 0.5 | n/a | 109 | 146 | 134 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-9D | 4/24/2018 | 6.6 | -15 | 1.1 | < 0.05 | | | 2.48 | | 1.5 | 0.98 | 2.4 | 139 | 183 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-10S | 4/24/2018 | 6.2 | 92 | 1.4 | < 0.05 | | | 0.0713 | | < 0.5 | n/a | 361 | 223 | 160 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-10D | 4/24/2018 | 7.3 | -104 | 0.9 | < 0.05 | | | 1.22 | | 1.0 | 0.22 | 3 | 51.9 | 217 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-12S | 4/24/2018 | 5.6 | 131 | 0.5 | 0.0873 | | | 0.676 | | < 0.5 | n/a | 1.08 | 8.7 | 41.8 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-16S | 4/24/2018 | 6.6 | -129 | 0.8 | 0.0647 | | | 0.4 | | < 0.5 | n/a | 163 | 98.3 | 139 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-16D | 4/24/2018 | 7.3 | -170 | 0.8 | < 0.05 | | | 2.4 | | < 0.5 | n/a | 102 | 62.5 | 111 | 15.8 | < 0.2 | < 0.2 | < 0.2 |
| MW-17S | 4/25/2018 | 5.7 | 161 | 0.6 | 0.295 | | | 0.907 | | < 0.5 | n/a | 3 | 18.4 | 31.7 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-18S | 4/26/2018 | 6.1 | 113 | 0.6 | 0.0941 | | | 0.0356 | | < 0.5 | n/a | 19 | 54.0 | 93.2 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-18D | 4/26/2018 | 6.8 | 5 | 0.6 | < 0.05 | | | 0.731 | | 0.5 | 0.23 | 2 | 33.1 | 142 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-19S | 4/25/2018 | 5.7 | -136 | 0.6 | < 0.05 | | | 0.109 | | < 0.5 | n/a | 38 | 133 | 88.7 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-19D | 4/25/2018 | 6.3 | -154 | 0.3 | 0.0662 | | | 2.64 | | 1.5 | 1.14 | 51.8 | 89.1 | 104 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-20S | 4/24/2018 | 6.4 | -167 | 0.6 | < 0.05 | | | | 1.8 | 2.0 | n/a | 158 | 89.3 | 99.9 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-20D | 4/24/2018 | 6.2 | -145 | 1.5 | 0.0521 | | | 1.94 | | 1.5 | 0.44 | 141 | 62.2 | 90.6 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-21S | 4/23/2018 | 6.1 | 79 | 0.3 | < 0.05 | | | 1.03 | | 0.5 | 0.53 | 49 | 140 | 125 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-21D | 4/23/2018 | 6.9 | -41 | 0.5 | < 0.05 | | | | 0.893 | 1.0 | n/a | < 0.5 | 83 | 173 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-22S | 4/24/2018 | 6.1 | -168 | 0.5 | < 0.05 | | | 0.0672 | | NR | n/a | 809 | 258 | 129 | 2.49 | < 0.2 | < 0.2 | < 0.2 |
| MW-22D | 4/24/2018 | 6.9 | -136 | 1.7 | 0.127 | | | 0.5 | | < 0.5 | n/a | 45 | 115 | 151 | <1 | < 0.2 | < 0.2 | < 0.2 |
| MW-23 | 4/23/2018 | 6.9 | -158 | 0.7 | < 0.05 | | | 2.07 | | 2.0 | 0.07 | 140 | 85.1 | 183 | 2.05 | < 0.2 | < 0.2 | < 0.2 |
| RW-1 | 4/25/2018 | 6.7 | -185 | 0.2 | < 0.05 | | | 0.0683 | | NR | n/a | 78 | 191 | 250 | 2.73 | <2 | <2 | <2 |
| RW-2 | NS | | | | | | | | | | | | | | | < 0.2 | < 0.2 | < 0.2 |
| RW-3 | NS | | | | | | | | | | | | | | | < 0.2 | < 0.2 | < 0.2 |
| RW-4 | NS | | | | | | | | | | | | | | | < 0.2 | < 0.2 | < 0.2 |
| RW-5 | NS | | | | | | | | | | | | | | | < 0.2 | < 0.2 | < 0.2 |
| RW-6 | 4/25/2018 | 6.3 | -129 | 0.4 | < 0.05 | | | 1.64 | | 0.5 | 1.14 | 28 | 106.0 | 144.0 | 1.2 | < 0.2 | < 0.2 | < 0.2 |
| RW-7 | 4/25/2018 | 6.8 | -123 | 0.2 | 0.0734 | | | 5.80 | | 2.5 | 3.30 | 6 | 130.0 | 263.0 | 1.3 | <2 | <2 | <2 |
| RW-8 | NS | | | | | | | | | | | | | | | < 0.2 | < 0.2 | < 0.2 |
| Neeley | 4/26/2018 | 6.6 | -65 | 0.3 | < 0.05 | | | 12.0 | | 1.5 | 10.50 | 2 | 18.7 | 90.5 | <1 | < 0.2 | < 0.2 | < 0.2 |

B = Analyte detected in associated field blank.

NS = Not sampled.

NR = Not recorded.

7.1.1 pH

Many anaerobic bacteria that facilitate natural attenuation of organic contaminants are sensitive to pH extremes, and microbial activity tends to be inhibited outside the pH range of 6.0 su to 8.5 su. Data for the sampling period show that groundwater pH at the site is generally within the optimal range for microbial activity, ranging from 5.5 su to 7.5 su. Groundwater pH values for five shallow monitoring wells (MW-1S, MW-8S, MW-12S, MW-17S, and MW-19S) were below 6.0 su but consistent with historical data for those wells.

7.1.2 ORP

Measurements of electric potential (Eh) of an aquifer may be used to provide insight into the mechanisms of biodegradation that may be occurring within a contaminant plume. While the electric potential of an aquifer is not directly measured, field ORP measurements may be converted to Eh by adding the electric potential of the silver chloride reference electrode (199 mV) to the reported value. The ORP of groundwater typically varies between -600mV and +600mV (Wiedermeier et al. 1999). Certain biochemical reactions will only occur under specific redox conditions. Aerobic biodegradation of organic contaminants generally occurs when ORP is greater than +150mV. Mildly reducing conditions (-150mV to +150mV) normally produce manganese, nitrate, and then iron reduction associated with bacterial activity. As the environment becomes increasingly reducing (<-400mV), biological degradation changes from iron reduction, to sulfate reduction, and then to methanogenesis (CO₂ reduction). Twenty-four of 25 wells sampled in the TI Zone during the spring 2018 sampling event had ORP measurements that indicated either mildly reducing conditions (15 wells) or moderately reducing conditions (9 wells) which are ideal for iron reduction. Two shallow wells, including one background well, reported ORP measurements indicating aerobic conditions MW-1S (181 mV) and MW-17S (161 mV). Shallow wells MW-5S (102mV), MW-12S (131 mV), and MW-18S (113 mV), had ORP measurements high enough to suggest that iron reduction was not occurring in those locations. Low or non-detect results for nitrate, however, may still indicate that other reductive processes are occurring in these wells.

7.1.3 DO

Aerobic degradation of hydrocarbon contaminants, including PAHs, requires DO levels greater than 1 mg/L in groundwater. In this case, oxygen is the electron acceptor, while the hydrocarbon is the electron donor. DO levels below 1 mg/L indicate that oxygen is depleted and conditions are favorable for anaerobic degradation while oxygen in concentrations less than about 0.5 mg/L is optimal (Wiedermeier et al., 1999). Nineteen of 25 wells sampled in the TI zone showed DO less than 1 mg/L, further indicating favorable conditions for anaerobic biodegradation.

7.1.4 TOC

TOC can be used as a measure of organic hydrocarbons present in site groundwater that function as electron donors in anaerobic degradation processes. TOC was detected during the current monitoring event at concentrations as high as 15.8 mg/L; however, TOC detections were not reported for samples from most wells, and higher TOC values do not correlate to higher PAH totals. Wiedemeier, et al., (1999) also suggests that TOC concentrations less than 20 mg/L are not sufficient to sustainably drive degradation processes. It is not clear how accurately TOC results characterize the potential for natural attenuation at the site.

7.2 Groundwater Geochemistry Changes

Under anaerobic conditions, organic contaminants are metabolized by microorganisms in the absence of oxygen. Compounds other than oxygen act as electron acceptors in contaminant oxidation. In general, rates of anaerobic biodegradation follow an order of favorable electron acceptor availability, with nitrate (NO₃) first, followed by manganese (Mn+4), ferric iron (Fe ³⁺), and sulfate (SO₄ ²⁻). Thus, electron acceptor concentrations below background in groundwater contaminated by organics suggest biologically mediated degradation processes are occurring. Generation products of electron acceptor reduction include dissolved ferrous iron (Fe²⁺), sulfide, methane (CH₄), chloride, and an increase in alkalinity. Complete biodegradation of hydrocarbons will result in the formation of CO₂, or CH₄ in the process of methanogenesis. Sulfide and methane analyses were not conducted during the spring 2018 sampling event. Decreased

concentrations of electron acceptors and corresponding increased concentrations of metabolic by-products compared to background provide indirect evidence for degradation.

7.2.1 Nitrate

Nitrate was not detected in 16 of 25 groundwater samples collected in the TI Zone. While nitrate generally occurs at low concentrations in the Ouachita Mountains aquifer (Kresse, et. al, 2014), non-detect nitrate concentrations could indicate that nitrate has been largely consumed during either ongoing or previous anaerobic reduction at the site. It is not clear to what degree lack of detections are the result of natural attenuation processes, nor is it clear to what degree the regular application of fertilizer called for in the site O&M plan (ADEQ 2011b) affects nitrate concentrations at wells where nitrate was detected in groundwater.

7.2.2 Manganese

Microbes utilize manganese +4 as an electron acceptor and generate dissolved manganese +2 as a metabolic by-product of anaerobic degradation. An increase in total manganese in samples from wells with low turbidity (low particulate fraction) or dissolved manganese results may indicate manganese reduction. While manganese has previously been evaluated with respect to natural attenuation, due to a change in laboratory reporting procedures, manganese results were not included in the lab report for the spring 2018 groundwater sampling event.

7.2.3 Ferric Iron

Where DO, nitrate, and manganese +4 are depleted, microbes utilize ferric iron (Fe3+) as an electron acceptor and generate dissolved ferrous iron (Fe2+) as a metabolic byproduct. Concentrations of ferric iron were calculated by subtracting estimated field observations for ferrous iron from laboratory results for total iron. Field kits used to estimate ferrous iron do not provide the level of accuracy needed to compare the data with laboratory analyses, and in some cases historically, ferrous iron values have been greater than total iron, making it difficult to evaluate the data. Iron was detected in all 25 sampled wells in the TI Zone. Ferric iron was

detected at concentrations greater than estimated ferrous iron in five of the 11 wells in the TI Zone where the two could be compared. Low concentrations of ferric iron within the TI Zone is a strong indicator of ongoing reduction processes

7.2.4 Sulfate

Low levels of sulfate relative to background would be expected under sulfate reducing conditions. Spring 2018 sulfate levels were elevated in the TI Zone compared to background and no significant reduction in sulfate concentrations have been observed compared to historical data. Therefore, sulfate is likely not a terminal electron acceptor in the biodegradation process at this site.

7.3 Degradation By-Products

7.3.1 PCP Daughter Products

PCP has been shown to degrade anaerobically by reductive dechlorination. During reductive dechlorination of PCP, chlorine atoms, acting as electron acceptors, are removed from the PCP molecule, and replaced by hydrogen, producing first tetrachlorophenol (TeCP), followed by trichlorophenol (TCP), dichlorophenol (DCP), and chlorophenol (CP). Because TeCP and TCP can occur in the original wood-treating chemical, presence of dichlorophenol and chlorophenol are generally considered better indicators of degradation.

PCP degradation breakdown products currently being analyzed at the site are 2-chlorophenol (2-CP), 2,6-dichlorophenol (2,6-DCP), and 2,4-dichlorophenol (2,4-DCP). Detectable concentrations of 2,4-DCP were reported in two wells during the spring 2017 monitoring event and four wells in fall 2017 monitoring event. Historically, 2,4-DCP is typically found in at least one well on site during monitoring events; however, 2,4-DCP concentrations appear to be decreasing across the site with time, potentially as a product of degradation processes (Appendix E, Table E.2). No PCP breakdown products were detected during the current monitoring event.

7.3.2 Chloride

Chloride is released as a by-product of PCP and PCP daughter product dechlorination, and increased concentrations compared to background typically indicate contaminant degradation. All deep wells inside the TI Zone had chloride concentrations greater than background well MW-1D (6.38 mg/L). All shallow wells inside the TI Zone showed chloride concentrations greater than background well MW-12S (8.70 mg/L), and all but MW-17S (18.4 mg/L) showed concentrations greater than background well MW-1S (43.4 mg/L). This data indicates dechlorination is occurring in the TI Zone. The highest chloride concentration was observed in the data for MW-3S (435 mg/L), where PCP is regularly detected.

7.3.3 Alkalinity

An increase in alkalinity is brought about by the production of carbon dioxide during biodegradation of organic carbon. All shallow wells have greater alkalinity concentrations than upgradient well MW-1S (21.2 mg/L), and all but MW-17S (31.7 mg/L) have a greater alkalinity concentration than upgradient well MW-12S (41.8 mg/L). The highest observed alkalinity concentration was at MW-3S (510 m/L). Alkalinity is also high at RW-1 (250 mg/L) where total PAHs were high (441 ug/L). The co-occurrence of increased chlorides and generally higher-than-background alkalinities suggests biological activity is occurring within the TI Zone.

7.3.4 Ferrous Iron

When microbes utilize ferric iron (Fe3+) as an electron acceptor, dissolved ferrous iron (Fe2+) is generated as a metabolic byproduct. While field estimated ferrous iron values are difficult to use in conjunction with laboratory results for total iron (Section 7.2.3), comparisons between ferrous iron values can be useful.

Ferrous iron was not detected (<0.5 mg/L) in either shallow background well MW-1S or MW-12S. Four shallow wells reported detectable (≥0.5 mg/L) ferrous iron concentrations, including 2.0 mg/L at MW-3S, the only well where PCP is regularly detected. Ferrous iron concentrations in deep wells, with the exceptions non-detect results at MW-08D, MW-16D, and MW-22D, are greater than ferrous iron in background well MW-1D (<0.5 mg/L).

Low background concentrations make evaluating iron reduction difficult; however, where both ferrous and ferric iron were present, ferric iron concentrations were less than ferrous iron concentrations at six wells, strongly indicating reduction. The detection of ferrous iron in 13 of the 25 sampled wells in the TI zone suggests that iron reduction is occurring in both shallow and deep groundwater zones. Additionally, at locations where ferrous iron was detected, nitrate concentrations were reported as either non-detect or just above the detection limit. Nitrate was detected at nine of the fourteen wells where ferrous iron was not detected, including all background wells. This is consistent with the general progression of redox reactions and another strong indicator that iron reduction is ongoing in the TI Zone.

7.4 Trends in Contaminant Concentrations

Contaminant plumes subject to natural attenuation can expand, remain stable, or shrink. These responses are shown by trends in contaminant concentrations over time (Wiedemeier et al., 1999). There were no statistical analyses conducted for this report to identify statistically significant trends in the data. Observations regarding data trends are based on a review of the data and selected time series graphs, discussed and presented below. Site cleanup levels are presented on time-series graphs as a red line, where applicable.

7.4.1 PCP Concentration Trends

Historically, PCP has been observed in MW-3S, MW-3D, MW-16S, MS-17S, and MW-20S, and all recovery wells except RW-5 and RW-6 (Appendix E Table E.1). The majority of PCP detections occurred during the operation of the pump and treat system. Since the pump and treat system was deactivated in 2006, a significant reduction in PCP concentrations in monitoring wells has been observed. Since 2011, PCP has been below reporting limits at all well locations, except for MW-3S, where it has been consistently detected, and concentrations have been relatively stable (Figure 7.1).

7.4.2 PAH Concentration Trends

Since 2006, when the pump and treat system was deactivated, there has been an overall reduction in PAH concentrations in site groundwater. Time series plots for PAH compounds that exceeded clean-up levels at specific well locations during the reporting period appear to show either decreasing trends or generally stable concentrations over time.

Figure 7.2 contains time series graphs for MW-3D showing qualitative decreasing trends for naphthalene and total PAHs.

Figure 7.3 shows time series graphs for benzo[a]anthracene, benzo[k]fluoranthene, benzo[a]pyrene, and total PAHs in RW-1. Concentrations typically remain below site clean-up levels, but occasional spikes produce exceedances.

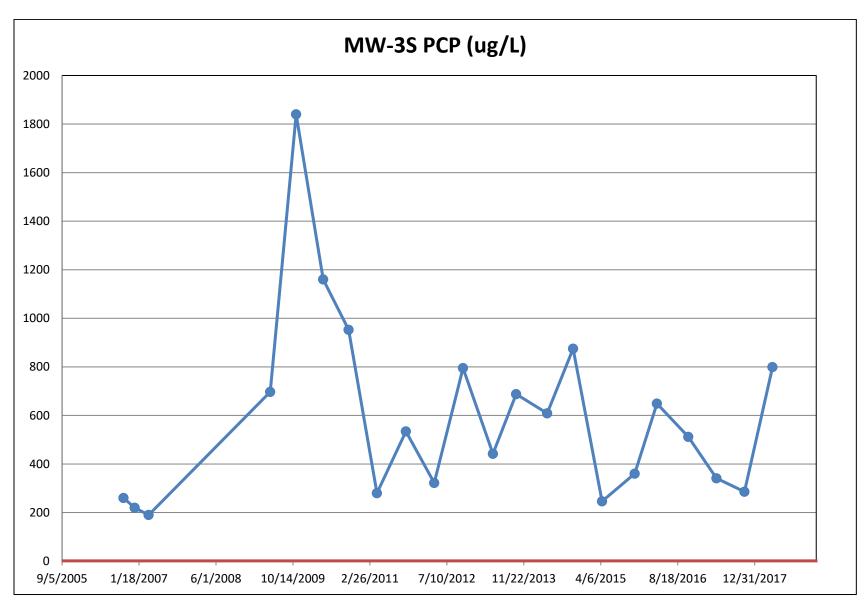


Figure 7.1 Time series graph for PCP in MW-3S.

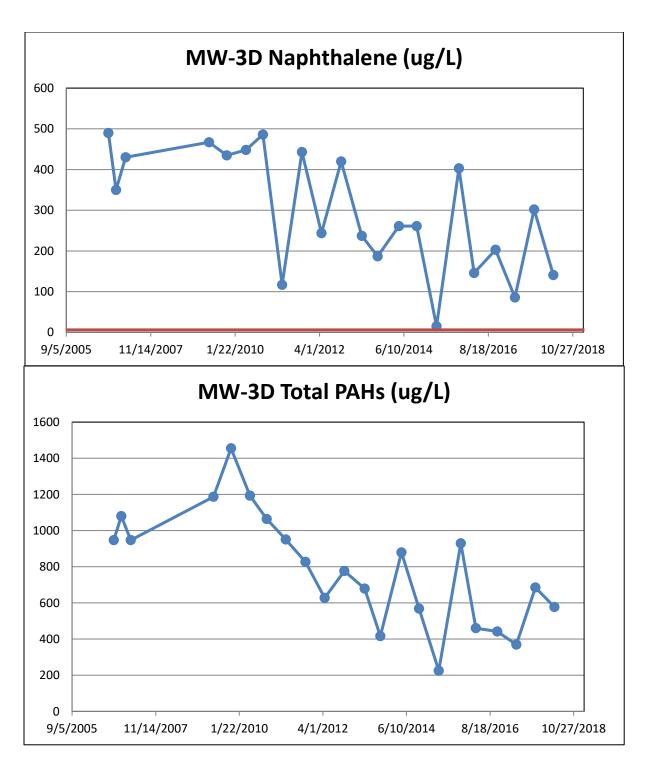


Figure 7.2 Time series graphs for MW-3D.

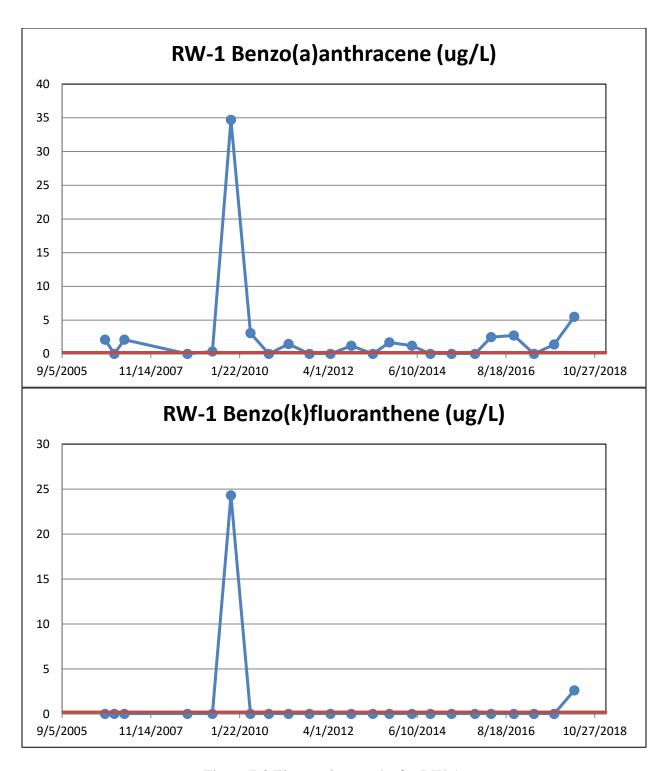


Figure 7.3 Time series graphs for RW-1.

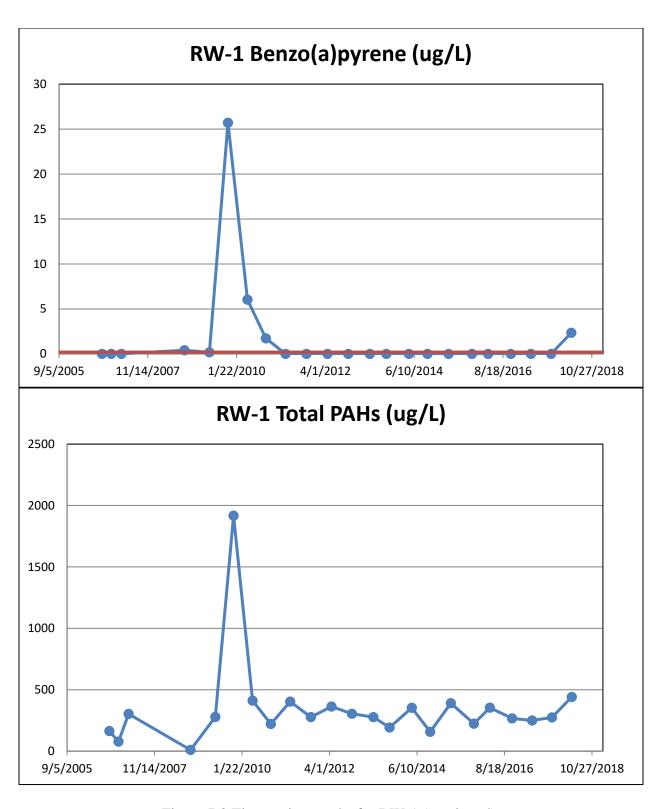


Figure 7.3 Time series graphs for RW-1 (continued).

8.0 MAINTENANCE TASKS

No maintenance tasks were requested or performed during the spring 2018 monitoring event.

9.0 SUMMARY AND CONCLUSIONS

The Amended ROD dated April 2006 specified MNA as the remedy for the OMP Superfund site. The objective of this Groundwater Monitoring Report is to evaluate groundwater data to determine the effectiveness of MNA as the site remedy. This report specifically addresses the groundwater sampling results for the spring 2018 sampling event.

PCP and PAHs occur in OMP site groundwater in the area where lagoons were used in the former wood treating operation (and within the TI Zone), and NAPL was observed in one monitoring well (MW-3D) and two recovery wells (RW-1 and RW-07), indicating a source of these contaminants is present at the site. PCP was observed in one monitoring well, MW-3S (799 μ g/L), and this concentration exceeded the cleanup level of 1 μ g/L. The highest total PAH concentrations were observed in recovery well RW-1 (441 μ g/L), and deep monitoring well MW-3D (577 μ g/L). Concentrations of one or more PAHs were reported in samples from seven wells completed within the TI Zone. Of the twelve PAH compounds detected, four were reported at concentrations exceeding cleanup levels: naphthalene, benzo[a]anthracene, benzo[k]fluoranthene, and benzo[a]pyrene.

The primary processes affecting attenuation of PCP and PAH compounds at the OMP site are adsorption to aquifer materials (in porous media) and biodegradation. Significant reductions in PCP and PAH concentrations have been observed since August 2006 when groundwater recovery and treatment was suspended. There are no apparent increasing trends for contaminants with cleanup levels. Most appear to be relatively stable (e.g. PCP in MW-3S) or decreasing in concentration (e.g. naphthalene in MW-3D), where elevated above cleanup levels. Except for notable detections in MW-3S, MW-3D, and RW-1, occurrences and concentrations of site contaminants are generally fewer and reduced or stable as compared to the previous monitoring event. Evidence for biological degradation of organic compounds in site groundwater in the current data is generally consistent with past observations and includes the following:

- 1. General groundwater conditions for pH (5.5 7.5 su), DO (anaerobic), and ORP (generally mildly to moderately reducing) are all conducive to biodegradation activities.
- 2. Changes in electron acceptor (nitrate and ferric iron) concentrations across the site indicate biodegradation processes are contributing to natural attenuation at the site.
- 3. The presence of degradation by-products (chloride, alkalinity, and ferrous iron) suggest natural attenuation of PCP and PAHs is occurring at the site.
- 4. Continuing decreasing trends were observed for naphthalene and total PAHs in MW-3D while total PAHs in RW-1 and PCP in MW-3S are stable.

The groundwater monitoring program at OMP is intended to ensure that contaminants are not migrating beyond the TI Zone at concentrations above the cleanup goals. As discussed in previous site reports, fractured bedrock presents a very complicated hydrogeologic setting in which to monitor contaminant movement and natural attenuation processes, as migration is affected by fracture geometry in addition to hydraulic gradients. During the current monitoring event, PCP and PAHs were not observed in monitoring wells downgradient from the TI Zone; nonetheless, site conditions prevent stating with certainty that contamination is contained within the TI Zone.

10.0 RECOMMENDATIONS

Based on the results of the current monitoring event, FTN recommends the following actions to improve the OMP groundwater monitoring program:

- 1. Install a secure well cap on the Neeley residential well, and perform any repairs needed to allow such installation, to prevent entry of foreign materials and ensure the representativeness of groundwater samples collected from the well.
- 2. Use a downhole video camera to observe and characterize the obstruction in the Neeley residential well. Remove obstruction or determine approach for removal, if possible.
- 3. Increase regular vegetation management within the perimeter of steel protective bollards around monitoring installations, including removal of saplings, in order to facilitate access to installations and prevent possible future damage to monitoring installations.
- 4. Consider implementing a pest control strategy to control fire ant mounding at the site.
- 5. Consider converting recovery wells to stick-up completions to ensure regular access for groundwater level measurements and sample collection during monitoring events. Current recovery well completion configurations are susceptible to flooding, which frequently prevents sample collection during monitoring events.
- 6. Specifically request reporting of manganese analysis results on Chain-of-Custody documentation in the future, so manganese results can be used as part of MNA evaluations.
- 7. Use downhole video camera to investigate potential well casing obstruction in P-4D.

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Field Sampling Documentation



OLD MIDLAND OLA, ARKANSAS

1H2018 GROUNDWATER SAMPLING

R03013-0020-032

APRIL 23-27, 2018



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| 10 10 | Set up on M | 10010/ 1-100 | -10 | |
| 1404 | Sign off on C | OCS & have | over sample | |
| 1412 | JAC diste | | | |
| 1424 | Set up on Mu | N-105/MW- | 100 | |
| 1718 | Collect com | prient bla | rue EB-5 by pu | mping distilled |
| | wester through | n deconno | d dec new de | an poly of |
| | sulcone tuo | ing over a | econned waster ! | ever musen |
| 1720 | VINTARD SICK-IN | - cd 0 d 100 | sample contained thick | (1) |
| 1737 | Lock gate 101 | Picite, | 4 Truck | |
| 1820 | Pick we cool | ers for say | mples for tomo | MAN |
| 10 20 | THE UP LINE | 00 101 200 | in the total | 1,500 |
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| | | | MM | |
| | | (X) | Spr. Jolg | |
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| | P | NA NA | · · · | |
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| Cita Lacations (ch. 10) | | Detail 11/20 11 9 |
|--|-----------------|----------------------------|
| Site Location: OMP Project Number: 03013 - ∞20 - 032 | Initials: EVVS | Date: 4/25/18 Page 3' of 4 |
| Oless Pick up ice for soundle coders | | rage 3 of 4 |
| 0707 Amile onlife clear, calm, 50 | OF. | |
| 0717 Camprate 1514 turbidity | meter | |
| | d side-by-side | |
| 0805 Set up on MW-SS | , , , , , , , | |
| 0925 Unload side-by-ride | | |
| 0935 Set up on MW-15 MW | 1-1D | |
| | AC onsite for s | ide-by-sided |
| sampe pickup | | |
| 1435 JAC' offsite. | 4 150-77 101 | munama distilla |
| | k (EB-7) by | pumping distilled |
| deconned water level in | refers (NWA#18 | NWA#8 Into jour |
| 1540 Lock gate , offsite | TOO CHOWN I | roov, c) me jus |
| July July 1 | | |
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| Cita I aga | 4: ON AVO | | Date: 4/26/2019 |
|------------|--|-------------------|-----------------|
| | tion: OMP umber: 03013-0020 - 032 | Initials: EWS | Page 4 of 4 |
| 0655 | Pick up ice for samples | minus. 0003 | Tugo 1 or 1 |
| 0700 | Arrive Onsite, 50°F. W Mir | d 4 mph, over | AA |
| 0713 | Calibrate ISI a turbicuty | id 4 mph, overco | |
| 0741 | complete calibration | 2000 | |
| 0750 | set up of MM-1821 MM- | | |
| 0957 | ADED (Tyler Wright) on | 2146 | |
| 107 | OH SHE WAYN T. ANNOWS. | to sample Neels | ey well |
| 1216 | Onsite, set up at MW- | 8D/ MMA-80 | U |
| 1257 | Me charle to make | in amole con | lov . |
| 1420 | Complect government by | ank FB-9 b | y Dumping |
| 1110 | distilled water through | 1 clean tubine | over We meter |
| | Collect equipment by distilled water through into Sample jars | |) |
| | Desi Tibili I care Filos | ving across are | a while filling |
| 1.140 | Sample jars | | |
| 1430 | DAC OHSITE | لمرام عصرونا ماما | The laws |
| 1438 | Dump decon water i | ino orano, prio | rograph Quants |
| 1000 | Wire part, off site | | |
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| Date/Time: | 1346 | 4-23-18 |
|--------------|----------|---------|
| Prepared By: | ASH | |
| Location: | OMP | |
| Project #: | 03013-00 | 120-037 |

| Instrument Type | Instrument ID | Parameter | Standard (su) | Units | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated | Post Calibration Reading | Co | omments |
|-----------------|------------------|-----------|------------------|-----------|-------------------------------------|------------------------------------|------------|--------------------------------|-----------|---------|
| MIPRU PLUS | 5 | Cond | 0 | uS/cm | 19,5 | 3.1 | Y (N) | | to av | |
| | | Cond | 447 | uS/cm | 19,4 | 453.8 | (y) N | OFPH. | 7617946 | AUG 18 |
| | | pН | 7 | su | 123 | 6-90 | (Y) N | 7,03 | 76H158 | A4619 |
| | | pН | 4)10 | su | 19,0 | 3,94 | (Y) N | 400 | 2C1+050 | : Augla |
| | | DO | 750,5 | mm/Hg | 20.2 | 8. ZE mg/ | N | 9/11 mg/1 | | |
| | | Temp | | Degrees C | / | / | (N) | N/A | | |
| | | ORP | 223 | nv | 20,1 | 225,3 | (Y)N | 277.7 | 8 613 608 | 101/8 |
| MICRU TPL | 15 | Turbidity | 1000 | NTU | N/A | 963.1 | C) N | 9955 | 71203 | DECIG |
| | | Turbidity | 10.0 | NTU | N/A | 10.69 | Ø N | 10,05 | 61243 | 1) 6018 |
| | | Turbidity | 0,02 | NTU | N/A | 0,43 | (Y) N | 0,01 | 7110) | 1019 |
| | | Turbidity | | NTU | N/A | | YN | | | , , |

Comments:

Notes:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
- Temperature Calibration: No calibration is necessary. Record temperature of standard using thermometer while in calibration cup.
 Then record sonde temperature reading.

Precision and accuracy targets are commonly based on relative percent differences. Precision is either based on a relative percent difference between replicates (analytical precision) or duplicate samples (method precision) as follows:

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The standard deviation of the average of a group of replicate (or duplicate) pairs represents the precision for a measurement parameter. For accuracy, percent difference is determined relative to a known or target value and is as follows:

Percent Difference = 100 * (observed - target)/target



Date/Time: 4/23/2018 1345

Location: OMP 1H2018

Project #: 030(3-0020-028 032

| Instrument Type | Instrument ID | Parameter | Standard (su) | Units | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated | Post Calibration Reading | Coi | mments |
|-----------------|------------------|-----------|------------------|-----------|-------------------------------------|------------------------------------|------------|--------------------------------|-----------|---------|
| 49 Po Plus | #4 | Cond | 0 | uS/cm | 20.4 | 1.2 | YN | | to air | |
| , | • | Cond | 414 | uS/cm | 10.2 | 417.9 | (Y) N | 414.D | Maria | 8GC304 |
| | | pН | 7,62 | su | 10.5 | 7.18 | ® N | 7.02 | Feb20 | 8GB386 |
| | | pН | (4) 10 | su | 10.D | 4.00 | (Y) N | 4.00 | Jan 20 | 8GA 190 |
| | | DO | 749.8 | mm/Hg | 19.3 | @9.58 mg/ | (Y) N | 9.04 mg/ | TOO WO | vter |
| | | Temp | | Degrees C | 20.1 | \$ 20 | N | N/A | Factory C | neck |
| | | ORP | 223 | mV | 20.0 | 219.2 | (Y) N | 223,0 | Nov 180 | 8GB608 |
| MICHTIPA | 世口 | Turbidity | iDOO | NTU | N/A | 1021. | (Y) N | 1007 | May 19 | 70503 |
| - | | Turbidity | [0.0] | NTU | N/A | 10.34 | √ N | 9.96 | May 18 | 7050 |
| | | Turbidity | 0.02 | NTU | N/A | 0.51 | Y N | 0.02 | Maria | 705 |
| | | Turbidity | | NTU | N/A | | YN | | 10 | |

Comments:

Notes:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
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Percent Difference = 100 * (observed - target)/target



| 0721 | 4-24-8 |
|------|--------|
| ASI | |
| OMP | |
| | ASIX |

Project #: 03013 -0020-082

| Instrument Type | Instrument ID | Parameter | Standard (su) | Units | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated | Post Calibration Reading | Comments |
|-----------------|------------------|-----------|------------------|-----------|-------------------------------------|------------------------------------|------------|--------------------------------|----------------|
| YYIPRU | 5 | Cond | 0 | uS/cm | 116 | 2.1 | Y (M) | | to an |
| Plus | | Cond | 447 | uS/cm | 12.1 | 450,0 | C) N | 4420 | 76H946 Aug 19 |
| | | рН | 7 | su | [21] | 7.11 | (Y) N | 7.05 | 7617158 Aus 19 |
| | | рН | (4)10 | su | 13.0 | 4.08 | Ø N | 4,00 | 7617056 A4619 |
| | | DO | 753.8 | mm/Hg | 10.5 | 10,63 mg/ | Ø N | 9.67 mg/l | |
| | | Temp | 13,5 | Degrees C | 13.6 | 10 | (N) | N/A | factory char |
| | | ORP | 227 | πV | 13.3 | 230,5 | Ø N | | 86B608 NOV/18 |
| MICROTPW | 5 | Turbidity | low | NTU | N/A | 959,1 | QN | 1000 | SGREOS NOUMS |
| | | Turbidity | 10-0 | NTU | N/A | 9.92 | YN | 9-93 | 61743 DEC18 |
| | | Turbidity | 0.02 | NTU | N/A | 0.23 | Y) N | 0.01 | 71101 Navig |
| | | Turbidity | | NTU | N/A | | YN | | |

Notes:

Comments:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
- 4. Temperature Calibration: No calibration is necessary. Record temperature of standard using thermometer while in calibration cup. Then record sonde temperature reading.

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Percent Difference = 100 * (observed - target)/target

71703 DECK



Prepared By: EVVS

Project #: 03013 - 0020 - 03 Z

| Instrument Type | Instrument ID | Parameter Cond | Standard (su) | Units uS/cm | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated Y N | Post Calibration Reading | Comments | |
|-----------------|---------------|-------------------|------------------|----------------|-------------------------------|------------------------------------|----------------|--------------------------------|-----------|--------|
| | | | | | | | | | to our | |
| | | Cond | 369 | uS/cm | 12.6 | 402.0 | ⟨Y⟩ N | 369.0 | Mar19 | 8GC364 |
| | | рН | 7,04 | su | 13.2 | 7.08 | Ø N | 7.04 | Feb20 | 89384 |
| | | рН | 4 / 10 | su | 12.9 | 4.03 | Ø N | 4.00 | Jan 20 | 86A190 |
| | | DO | 753.2 | mm/Hg | 15.5 | 10.32 mg/ | Ø N | 9.12 mg/t | tap mater | |
| | | Temp | | Degrees C | 13.0 | 13 | N | N/A | factory d | |
| | | OKP | 227 | mV | 12.9 | 234.6 | CY) N | 227.0 | Nov18 | 89B608 |
| MichiPM | #6 | Turbidity | 1000 | NTU | N/A | 1005 | Ŷ N | 991.1 | May 19 | 70503 |
| | | Turbidity | 10.0 | NTU | N/A | 9.82 | N N | 10.01 | May 18 | 70521 |
| | | Turbidity | 0.02 | NTU | N/A | 0.00 | Y N | 0.01 | May 19 | 70501 |
| | | Turbidity | | NTU | N/A | | YN | | | |

Comments:

Notes:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
- Temperature Calibration: No calibration is necessary. Record temperature of standard using thermometer while in calibration cup.
 Then record sonde temperature reading.

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Percent Difference = 100 * (observed - target)/target



| Date/Time: | 0719 | 4/25/18 |
|--------------|---------|---------|
| Prepared By: | ASIX | |
| Location: | OMP | |
| Droinet #1 | 03 13 - | 60000 |

| Instrument Type | Instrument ID | Parameter | Standard (su) | Units | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated | Post Calibration Reading | Comments |
|-----------------|------------------|-----------|------------------|-----------|-------------------------------------|------------------------------------|------------|--------------------------------|----------------|
| 152 PRU PLUS | 5 | Cond | 0 | uS/cm | 13.7 | 0.6 | Y 🔇 | | to air |
| | | Cond | 447 | uS/cm | 13.7 | 4014,5 | (Y) N | 447.1 | 7614946 AUG 18 |
| | | рН | 7 | su | 14,0 | 703 | (Y) N | 7.05 | 704198 Aug 19 |
| | | pН | (<u>4</u>)/10 | su | 14,4 | 4,04 | (Y) N | 4,00 | 76HOSG RUEKI |
| | | DO | 754.2 | mm/Hg | 18.4 | 9.79 mg/l | (P) N | 4,37 mg/l | |
| | | Temp | 12 | Degrees C | 16-8 | 2/ | (N) | N/A | factor, this |
| | | ORP | 227 | NV | 14:1 | 258.5 | (Y) N | 2220 | 86B/08 Non 18 |
| 15igu Thu | 5 | Turbidity | 1400 | NTU | N/A | 976.7 | CK N | 947,9 | 712e3 1) EC 19 |
| | | Turbidity | 1000 | NTU | N/A | 1.83 | (P) N | 10,00 | 151243 1200 18 |
| | | Turbidity | 002 | NTU | N/A | 0,28 | (Y) N | 0.02 | 71101 Na 19 |
| | | Turbidity | | NTU | N/A | | Y/ N | | |

Comments:

Notes:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
- 4. Temperature Calibration: No calibration is necessary. Record temperature of standard using thermometer while in calibration cup. Then record sonde temperature reading.

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Percent Difference = 100 * (observed - target)/target



Date/Time: 04/25/2018 0717

Prepared By: EWS

Location: EVA 9 OMP

Project #: 03013-0020-032

| Instrument Type | Instrument ID | Parameter | Standard (su) | Units | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated | Post Calibration Reading | Comments |
|-----------------|------------------|-----------|------------------|-----------|-------------------------------------|------------------------------------|------------|--------------------------------|----------------|
| 4SI Pro Plus | #4 | Cond | 0 | uS/cm | 11.0 | 2.4 | Y (N) | _ | to air |
| | | Cond | 300 | uS/cm | 12.4 | 400.9 | (Y) N | 369.0 | Mar19 8GC364 |
| | | рН | 7,04 | su | 15.2 | 6.99 | (Y) N | 7.04 | Feb20 8618386 |
| | | pН | (4)/ 10 | su | 15,4 | 3.95 | ⊗ N | 4.00 | Jan 20 & GA190 |
| | | DO | 753.6 | mm/Hg | 15.1 | 10.34 mg/ | (Y) N | 9.97 mg/ | tab water |
| | | Temp | 15.0 | Degrees C | | 15' | N | N/A | factory check |
| | | ORP | 227 | mV | 15.0 | 224.0 | Y) N | 227.0 | Nov 18 8 GB608 |
| MICHOTPW | #60 | Turbidity | 1000 | NTU | N/A | 1000 | Y N | 1094 | May 19 70503 |
| | | Turbidity | i0.0 | NTU | N/A | 9.99 | (Y) N | 9.53 | May 18 70521 |
| | | Turbidity | 0.02 | NTU | N/A | 0.07 | (Y) N | 0.02 | May 19 70501 |
| | | Turbidity | | NTU | N/A | | YN | | |

Comments:

Notes:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
- 4. Temperature Calibration: No calibration is necessary. Record temperature of standard using thermometer while in calibration cup. Then record sonde temperature reading.

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Percent Difference = 100 * (observed - target)/target



| Date/Time: _ | 4/26/18 | 0715 |
|--------------|--------------|------|
| Prepared By: | ASH | |
| Location: | CMP | |
| Desiret # | 12.3-1121-11 | 200 |

| Instrument Type | Instrument ID | Parameter | Standard (su) | Units | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated | Post Calibration Reading | Com | nments |
|-----------------|------------------|-----------|------------------|-----------|-------------------------------------|------------------------------------|------------|--------------------------------|-----------|--------|
| >> Preury | 5 | Cond | 0 | uS/cm | 11.7 | 2.4 | Y (N) | | train | . 8 |
| | · · | Cond | 447 | uS/cm | 14.9 | 426.6 | (P) N | 4467 | 8GC 304 | MARIA |
| | | pН | 7 | su | 13/3 | 702 | (M) | 7.00 | 7GH158 | A46/19 |
| | | pН | (4) 10 | su | 14.5 | 3,95 | (Y) N | 4-00 | 864190 | JANRO |
| | | DO | 751.0 | mm/Hg | 131 | 9,79 mg/ | Ø N | 10,40 mg/l | | |
| | | Temp | 125 | Degrees C | 126 | | N | N/A | factory c | heck |
| | | URP | U27 | m | 125 | 225-1 | (Y) N | 20,0 | 8 GB GOY | Nov 18 |
| MILIPUTPW | 7 | Turbidity | lac | NTU | N/A | 1059 | (A) N | 1000 | 71703 | DEC19 |
| | | Turbidity | 111,0 | NTU | N/A | 9.95 | () N | 998 | 61743 | DEC 18 |
| | | Turbidity | 200 | NTU | N/A | (101) | (9) N | 0.06 | 71101 | NW19 |
| | | Turbidity | | NTU | N/A | | ΥN | | | |

Comments:

Notes:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
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The standard deviation of the average of a group of replicate (or duplicate) pairs represents the precision for a measurement parameter. For accuracy, percent difference is determined relative to a known or target value and is as follows:

Percent Difference = 100 * (observed - target)/target

Not altrace



Date/Time: 04/26/2018 07/3

Prepared By: EWS

Location: 0MP

Project #: 030/3-0020-082

| Instrument Type | Instrument ID | Parameter | Standard (su) | Units | Temp. of Standard (degrees C) | Reading Prior to Calibration | Calibrated | Post Calibration Reading | Com | nments |
|-----------------|------------------|-----------|------------------|-----------|-------------------------------------|------------------------------------|------------|--------------------------------|---------|---------|
| YST PO Plus | #4 | Cond | 0 | uS/cm | 11.7 | 0.6 | Y (N) | | to air | |
| . (1 | 1 | Cond | 369.0 | uS/cm | 14.8 | 389.5 | (Y) N | 369.0 | May 19 | 8G(304 |
| | | pН | 7,04 | su | 14.6 | 7,05 | Y) N | 7.04 | Feb20 | 8 GB384 |
| | | pН | (4)/ 10 ° | su | 14.8 | 4.01 | (P)N | 4,00 | Jan 20 | 8 GA190 |
| | | DO | 750.6 | mm/Hg | 13.2 | 10.81 mg/ | (Y) N | 10.32 mon | tap was | ex |
| | | Temp | | Degrees C | 14.9 | 15 | N | N/A | factory | check |
| | | 0/2/2 | 227 | mV | 14.9 | 227.1 | (Ŷ) N | 227.0 | Nov 18 | 8GBIOTT |
| MICHOTPW | #6 | Turbidity | 1000 | NTU | N/A | 1100 | Ø N | 972.9 | May19 | 70503 |
| | | Turbidity | 10.0 | NTU | N/A | 9.05 | Ø N | 10.26 | May 18 | 70921 |
| | | Turbidity | 0.02 | NTU | N/A | 0.00 | (Ŷ) N | 0.17 | 6104/19 | 70501 |
| | | Turbidity | | NTU | N/A | | YN | | | |

Comments:

Notes:

- 1. Specific Conductivity Calibration: Calibrate first to zero using air, then to standard using standard solution.
- 2. pH Calibration (pH Method: EPA 150.1)
- 3. DO Calibration: Use 100% air saturation method. Use pressure in mm/Hg as standard to calibrate in DO% saturation. Record readings in mg/l.
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Percent Difference = 100 * (observed - target)/target



| Project Nan | ne: | Pro | ject Number: | | Investiga | tor: | | | |
|-----------------|---------|--------|--|--|--------------------|---|--|---|--|
| OLD MII | AND. | ()3 | 013-0020-03 | 7 | ASI. | 3 | | Page \of_Z | |
| Weather Co | | | suring Device: | | | L | | | |
| _ | | | • | | | | | | |
| CLEAR, | 60% | 1 1/1 | NA#4 | | | | | | |
| Well ID | Date | Time + | Depth to + Water (feet below RP) | | Damages/Repairs | | | | |
| MW-175 | 4/23/18 | 1036 | 3.24 | Damaged bo | uipment | ☐ Damaged TOC ☐ Damaged lock ☑ Un-kept vegetation | | Lacks visibility treen the Lacks access ants around See gw sample record well | |
| MW-185 | | 1046 | 3.42 | Damaged working Damaged bo | ollards uipment | ☐ Damaged TOC ☐ Damaged lock ☐ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| MW-181) | | 1049 | 5.21 | Damaged bo | uipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| MU-23 MW-160 | | 1059 | 7.49 | Damaged wo | ollards uipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| MW-160 | | 801) | 7.53 | Damaged bo | uipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| MW-165 | | 1201 | 6.41 | Damaged wo | ollards uipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| MW-205 | | 1214 | 31.22 | Damaged wo | llards uipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Great studys Lacks access on Probe tip See gw sample record | |
| MW-20D | | 1126 | 6.66 | Damaged we Damaged bo Damaged eq | ollards uipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| MW-195 | | 1134 | 10.46 | Damaged wo Damaged bo Damaged eq | llards uipment | ☐ Damaged TOC ☐ Damaged lock ☐ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| RW-41 | | 1154 | VAULT FLOODED | Damaged wo | llards uipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| MW-225 | | 1207 | 7.78 | Damaged bo | uipment | ☐ Damaged TOC ☐ Damaged lock ☐ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| Rw-5 | | 1155 | VAULT FLOODED | ☐ Damaged wo ☐ Damaged bo ☐ Damaged eq | llards | Damaged TOC Damaged lock ++ Un-kept vegetation | | Lacks visibility Fire Lacks access ants See gw sample record | |
| Rw-3 | | 1157 | VAULT FLOODED | ☐ Damaged bo ☐ Damaged eq | | ☐ Damaged TOC ☐ Damaged lock ☐ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| RW-6 | | 1153 | VAULT FLOODED | Damaged wo | llards | ☐ Damaged TOC ☐ Damaged lock ☐ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |
| Mw-1910 | | 1222 | 5,43 | | ell pad/casing | ☐ Damaged TOC ☐ Damaged lock ☑ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record | |

RP = Reference Point TOC = Top of Casing gw = groundwater

+ transcribed by EWS on 5/1/2018

++ balbock HAIP BROKEN ON ONE SIDE OF VAULT LID



| rroject Nar | ne: | | 1 | Proj | ect Number: | Investigator: | | | | | 2 2 | | |
|-------------|------|-------|----------|----------|----------------|---------------|------------------------------|--------------|---|---------------------------------|-----|--|--------|
| OUD MI | DLAN | 17 | | ()3 | 013-0070-0 | 37 | | A511 | | | | Page Z of Z | |
| Weather Co | | | | | suring Device: | | | 7 1 7 | | | | | |
| | | , iii | | | VA# 4 | | | | | | | | |
| CLEAR, | 60 3 | | | NA | VA#7 | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | + | | † Depth to | | | | | | | | |
| Well ID | Da | ate | Time | e | Water (feet | | | | Ι | Damages/Repairs | | | |
| | | | | | below RP) | | | | | 9 | | | |
| | | | | - | , | | | | | | | | |
| | | | 1000 000 | _ | 6.38 | | Damaged we | I pad/casing | | Damaged TOC | | Lacks visibility | |
| MW-35 | 14/2 | 3/18 | 123 | 12 | | | Damaged bol | lards | | Damaged lock | | Lacks access | |
| /1W - 25 | | 710 | | | 24.11 | | Damaged equ | ipment | | Un-kept vegetation | | See gw sample record | |
| | 1 | | 000 | | VAULT | 님 | Damaged we | | | Damaged TOC | | Lacks visibility | |
| RW-2 | 1 | | 095 | 8 | PLUDED | 님 | Damaged bol | | 님 | Damaged lock | | Lacks access | |
| | | | | | | 井 | Damaged equ | | 님 | Un-kept vegetation | | See gw sample record | |
| ' | | | بلتصنا | ~ 1 | VAULT | H | Damaged we | | H | Damaged TOC | | Lacks visibility | |
| RW-7 | 1 | | 124 | | FLOODED | | Damaged bol Damaged equ | P 4 4 | | Damaged lock Un-kept vegetation | | Lacks access See gw sample record | |
| | | | | _ | | Ħ | Damaged we | | | Damaged TOC | H | Lacks visibility VISIBLE | Sheets |
| RW-1 | | | 124 | Z | 0.06 | | Damaged bol | 1.70 | | Damaged lock | | Lacks access in well | and |
| 1100 1 | | | 121 | 0 | 28,95 | | Damaged equ | | | Un-kept vegetation | | See gw sample record va | uut |
| | | | | | 4.14 | | Damaged we | | | Damaged TOC | | Lacks visibility | |
| MW-30 | 1 | | 1301 | 0 | | | Damaged bol | | | Damaged lock | | Lacks access | |
| Mw-31) | | | , , | | 38.55 | | Damaged equ | ipment | | Un-kept vegetation | | See gw sample record | |
| | | | | | VAULT | | Damaged we | | | Damaged TOC | | Lacks visibility | |
| Rw-8 | | | 094 | 9 | FLUCDED | | Damaged bol | | | Damaged lock | | Lacks access | |
| 1(00 0 | | | | | 7 | 님 | Damaged equ | | N | | 片 | See gw sample record | |
| | | \ | 1110 | , | 5.47 | H | Damaged we | | | Damaged TOC | | Lacks visibility | |
| MW-221) | 1 | ا را | 1118 | | 42,22 | H | Damaged bol | | | Damaged lock | H | Lacks access | |
| . 1 | , | | | | 7 76166 | ౼ | Damaged equipment Damaged we | | | Un-kept vegetation Damaged TOC | H | See gw sample record Lacks visibility | |
| | | | | | | | | | | Damaged lock | | Lacks access | |
| | | | | | | | Damaged equ | | | Un-kept vegetation | | See gw sample record | |
| | | | | | | | Damaged we | | | Damaged TOC | | Lacks visibility | |
| | | | | | | | Damaged bol | lards | | Damaged lock | | Lacks access | |
| | | | | | | | Damaged equ | ~ | | Un-kept vegetation | | See gw sample record | |
| | | | | | | 닏 | Damaged we | | | Damaged TOC | | Lacks visibility | |
| | | | | | | | Damaged bol | | 님 | | | Lacks access | |
| | | | | | | 님 | Damaged equ | | | | 片 | See gw sample record | |
| | | | | | | H | Damaged we Damaged bol | | | Damaged TOC Damaged lock | | Lacks visibility Lacks access | |
| | | | | | | | Damaged equ | | | Un-kept vegetation | | See gw sample record | |
| | | | | | - | | Damaged we | | | Damaged TOC | ō | Lacks visibility | İ |
| | | | | | | | | | | Damaged lock | | Lacks access | |
| | | | | | | | Damaged equ | | | Un-kept vegetation | | See gw sample record | |
| | | | | | | | | | | Damaged TOC | | Lacks visibility | |
| | | | | | | | | | | Damaged lock | | Lacks access | |
| | | | | | | | | | | Un-kept vegetation | Ц | See gw sample record | |
| | | | | | | 님 | _ | | | Damaged TOC | 닏 | Lacks visibility | |
| | | | | | | | _ | | | Damaged lock | | Lacks access | |
| | | | | | | 님 | Damaged equ | | 님 | Un-kept vegetation | 무 | See gw sample record | |
| | | | | | | | | | | Damaged TOC Damaged lock | | Lacks visibility Lacks access | |
| | | | | | | H | Damaged equ | | | | | See gw sample record | |
| Notes: | | | | | | | Danaged eqt | pinent | | On Rept regetation | | See 64 sample record | Į |

RP = Reference Point TOC = Top of Casing gw = groundwater + transcribed by EWI on 5/1/2018



| Project Na | | y | 1 ' | ject Number: 13-0020 - 03 | 2 | Investiga | itor: | | Page 1 of 2 |
|------------|------|---------|------|--------------------------------------|-------------------------------------|--|--|---|---|
| Weather C | | | - | suring Device: | - | EWS | | - | 1 4 6 1 01 |
| overcast | | , light | W IM | VA# I/NW | A#3 | TD: To | tal Depth | | |
| Well ID | D | ate | Time | Depth to Water (feet below RP) | 10 = 70 | tal Debth | Damages/Repairs | | , |
| P-035 | 4/2 | 13/18 | 1028 | 1.00 Tp: 20.81 | | | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record |
| P-03D | | } | 1030 | 3.70 | ☐ Damaged w ☐ Damaged b ☐ Damaged e | ell pad/casing ollards | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record |
| P-02S | | | 1040 | 4.07 | Damaged w Damaged b Damaged e | | ☐ Damaged TOC ☐ Damaged lock ☐ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record |
| P-02D | | | 1042 | 35.60 | Damaged b | quipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility SEFT Lacks access BUTTOM See gw sample record |
| WMOIS | | | 1055 | 11.10 | Damaged b | quipment | Damaged TOC FIRE Damaged lock Un-kept vegetation | | Lacks visibility Lacks access See gw sample record |
| MW-DID | | , | 1059 | 3.89 | Damaged b | quipment | Damaged TOC Damaged lock Un-kept vegetation | | Lacks visibility THEE Lacks access See gw sample record |
| P-085 | | 4 | 1108 | 13.55 | Damaged b | quipment | Damaged TOC Damaged lock Un-kept vegetation Damaged TOC | | Lacks visibility NEED Lacks access WEEP H |
| P-675 | | | 1113 | 1.44 | Damaged b | quipment | Damaged lock Un-kept vegetation | | Lacks visibility SEFT Lacks access Bettom See gw sample record |
| MW-125 | | | 1111 | 24.88 | Damaged b | quipment | Damaged TOC Damaged lock Un-kept vegetation Damaged TOC | | Lacks visibility SOFT Lacks access Bollom See gw sample record Lacks visibility |
| P-055 | 16 | | 1123 | ARTESIAN 14.08 | Damaged b | Control of the second of the s | Damaged ToC Damaged lock Un-kept vegetation Damaged TOC | | Lacks visibility Lacks access See gw sample record Lacks visibility |
| P-05D | | | 1127 | ANTESIAN 40.80 | Damaged b | ollards quipment | ☐ Damaged lock ☐ Un-kept vegetation | | Lacks access See gw sample record |
| MW-55 | | | 1141 | 20.50 | Damaged b | quipment | Damaged TOC FILE Damaged lock AND Un-kept vegetation | | Lacks visibility NEED Lacks access WEEP to See gw sample record |
| P-045 | | | 1150 | 4.90 | Damaged be | quipment | Damaged TOC Damaged lock Un-kept vegetation Damaged TOC | | Lacks visibility SOFT Lacks access Bollom See gw sample record |
| P-04D | | | 1154 | 4.74 | Damaged be | quipment | ☐ Damaged lock☐ Un-kept vegetation | | Lacks visibility Lacks access See gw sample record |
| MW-2 | IS . | | 1204 | 5.06 | ☐ Damaged w ☐ Damaged b ☐ Damaged e | | Damaged TOC SOFT Damaged lock BITDM Un-kept vegetation | | Lacks visibility NEED Lacks access PAINT See gw sample record |

Notes: RP = Reference Point TOC = Top of Casing gw = groundwater

* Water in protective steel caving, needs weephole ** water flowing out of protective steel caving over lock (see photo)



| roject Nai | | | ject Number: 013-602D - D | Investiga EWS | | Page 2 of 2 |
|---|------------|----------------------|--------------------------------------|--|---|---|
| Weather Co | onditions: | Me | asuring Device: | | Total Depth | 1000 |
| Well ID | Date | Time | Depth to Water (feet below RP) | 1 | Damages/Repairs | |
| MW-21D | 4/23/18 | 1208 | 4.50 TD:46.95 | Damaged well pad/casing Damaged bollards Damaged equipment | | Lacks visibility NEED Lacks access PAINT See gw sample record |
| P-065 | | 1220 | 5.72 | Damaged well pad/casing Damaged bollards Damaged equipment | | Lacks visibility Lacks access See gw sample record |
| P-OVED | | 1224 | 3.31 | ☐ Damaged well pad/casing ☐ Damaged bollards ☐ Damaged equipment | | Lacks visibility Lacks access See gw sample record |
| MW-095 | | 1233 | 5.32 20.30 3.75 | Damaged well pad/casing | Damaged TOC Damaged lock Coff of Un-kept vegetation | Lacks visibility |
| MW-09D | | 1237 | 3.75 | Damaged well pad/casing Damaged bollards Damaged equipment | Damaged TOC SOFF | Lacks visibility Lacks access See gw sample record |
| MW.105 | | 1246 | 1.70 | Damaged well pad/casing Damaged bollards Damaged equipment | ☐ Damaged TOC ☐ | Lacks visibility Lacks access See gw sample record |
| MW-10D | | 1250 | 2.11 | Damaged well pad/casing Damaged bollards Damaged equipment | Damaged TOC STOFT | Lacks visibility Lacks access See gw sample record |
| MW-85 | | 1302 | 5.31 | ☐ Damaged well pad/casing ☐ Damaged bollards ☐ Damaged equipment | ☐ Damaged TOC [| Lacks visibility Lacks access See gw sample record |
| WM-8D | 1 | 1304 | 6.74 | Damaged well pad/casing | ☐ Damaged TOC ☐ | Lacks visibility Lacks access See gw sample record |
| 1 | | | | ☐ Damaged well pad/casing ☐ Damaged bollards ☐ Damaged equipment | ☐ Damaged TOC ☐ | Lacks visibility Lacks access See gw sample record |
| | T. 0 | | | ☐ Damaged well pad/casing ☐ Damaged bollards ☐ Damaged equipment | ☐ Damaged TOC | Lacks visibility Lacks access See gw sample record |
| | | | jii | ☐ Damaged well pad/casing ☐ Damaged bollards ☐ Damaged equipment | part p | Lacks visibility Lacks access See gw sample record |
| | | × | | ☐ Damaged well pad/casing ☐ Damaged bollards ☐ Damaged equipment | ☐ Damaged TOC ☐ Damaged lock ☐ | Lacks visibility Lacks access See gw sample record |
| | | 1 | | ☐ Damaged well pad/casing ☐ Damaged bollards ☐ Damaged equipment | ☐ Damaged TOC ☐ | Lacks visibility Lacks access See gw sample record |
|) | 12 | | 4 | Damaged well pad/casing Damaged bollards Damaged equipment | Damaged TOC Damaged lock | Lacks visibility Lacks access See gw sample record |
| Notes: RP = Reference Poin TOC = Top of Casin gw = groundwater | | r standi PL Detec | ny/flowing Hed | abund well | | |

Groundwater Sampling Record Facility: OMP Sampler: FW) oject Number: 03013 - 0010 - 032 FTN Associates, Ltd Date: 04 **Site Description** Type: Monitoring Well Temporary Well Extraction Well Production Well Dewatering Well Borehole Other 60 Air Temp (°F): Wind: SW Weather: Dunnath Well Locked? ☐ Yes ☐ No Total Depth (ft) 19.15 Remarks: Unit rain while filling bottles Water Level Data Measuring point description: Water level Meter Make/Model No. Serial No. (Optional): MWAH Mark/notch on TOC North rim of TOC Pre-purge During Purge After Pre-purge Remarks Other: initial confirmation purging end sampling 0940 0.30 Time ("24:00" hr) 055 1013 Depth to Water (ft) 5.45 544 Date (mm/dd/yy) 64/23/18 LNAPL Thickness (ft) (If present) DNAPL Thickness (ft) (If present) Note: Record "S" in Remarks Column if sheen is observed. Field Data Unit or Serial No: Instrument Make/Model No: Pump description: Bailer description: 131 BU YM ✓ Peristaltic ☐ Disposable polyethylene #10 MICHOTPH Bladder (dedicated / portable) ☐ Disposable Teflon ☐ Submersible ☐ Disposable PVC Purge depth (ft): Well goes dry during purging: Yes No Casing vol. (gal): = [total depth (feet) - depth to water (feet)] • [well ID (inches)²] • 0.0408 (where applicable) Time ("24:00" hr) 10:30 Remarks Purge vol. (gal) Purge rate (mL/min) 20 6.14 5.52 5.55 5.53 5.57 pH (su) Temp. (°C) 15 5 16.6 Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) 0.95 Color/tint Clear Odor Nove Sample Data

| Sample ID | Date | Time | # Containers | # Filtered | Remarks |
|-----------|----------|------|--------------|------------|----------------------------------|
| MW-1S | 04/25/18 | 1038 | 4 | Ø | 1x1L amber; 1x1L platic; 1x125mc |
| * | 1 | | | | plattic; 1x40mc glass |
| | | | | | J. |

| Sampler's Name (print): Furabeth, St. | ndebaker | Sampler Signature: | Olyphalala |
|---------------------------------------|----------|--------------------|------------|
| 1.01. | 100 1 | | -04 |

| Facility: OMP | | | | T | Site ID: | Mai- | ID | Sample | er: FM | /\ | | | |
|---------------------------------------|-----------------|------------|------------------|------|-----------------------|----------|----------------------|-----------|--------------|------------|-----------|-------------------------|---------------|
| oject Number: 03 | 013-002 | 1-0 | 32 | 1 | Date: () | | | Junipa | UV | 40 | | FTN As | sociates, Ltd |
| | 017 001 | <u> </u> | | | | 400 | 10 1 | | | | | | |
| Site Description | | | | | | | | | | | | | |
| Type: Monitoring W | | orary W | | | | | ction Wel | l De | | | orehole [| | |
| Weather: Ught ro | | _ | | | np (°F): | 51 | | | | Wind: V | | | |
| Well Locked? Yes | s □ No | Total | Depth (f | | | Damag | ge/repair | s neede | d: WN | cept v | exta | tion | |
| Remarks: | | | | 40 | 4.00 | | | | | • | 0 | | |
| | | | 24 | | S 1/44 /4 | 1 | | | - | | | | |
| Water Level Data | | | Fe2t | et | o mg | IL | | | | | | | |
| Measuring point descr | | Wa | ater level | Mete | r Make/l | Model N | No. | | Serial N | lo. (Optio | onal): | | |
| Mark/notch on TO | | | MA | | D-0 | - 1 | Duning | _ | Durana | 1 4 | fter | | |
| Other: | | | re-purge initial | | Pre-purg onfirmati | | During purging | | Purge end | | pling | Re | marks |
| Time ("24:00" hr) | | | 059 | | 047 | | 1115 | 1 | 147 | | 00 | | |
| Depth to Water (ft) | | | ,89 | _ | 1.12 | | 4.70 | 1 | 1.78 | | 78 | | |
| Date (mm/dd/yy) | | | 1124/18 | _ | 41251 | 18 - | | | 1.10 | | 7 | | |
| LNAPL Thickness (ft) | | | 1 1 10 | | 11 | | | | | | | | |
| DNAPL Thickness (ft | | ۱. | | 1 | | | | | | | | | |
| Note: Record "S" in Remark | ks Column if si | neen is ob | oserved. | | | | | | | | | | |
| Field Data | | | | | | | | | | 19 | | | |
| Instrument Make/Mod | lel No: U | Init or S | Serial No: | | | | p descri | | | H | | scription: | |
| 151 Ho Al | " – | | #4 | | | | Peristalt Bladder | | ted / por | table) | | osable po osable Te | lyethylene |
| TANCHALL A | | | -4 | | | | Submer | | ited / por | uoic) | | osable PV | |
| Purge depth (ft): | ~35 | ~47 | 1.5 | | Well g | oes dry | during p | ourging: | □ Y∈ | s 🗹 N | 0 | | |
| Casing vol. (gal): | | | | | = [total | depth (f | eet) – der | oth to wa | ter (feet)] | • [well ID | (inches) | ²] • 0.0408 | |
| (where applicable) Time ("24:00" hr) | 1000 | 100 1 | 4×0 1 | 115 | | | 1177 | 1101 | 1135 | 11201 | 1143 R | | 1 |
| | 1057 1 | 1021 | 110 1 | 115 | 1120 | 1123 | 1121 | 1131 | 1132 | 1131 | 11424 | ematks/ | |
| Purge vol. (gal) Purge rate (mL/min) | 120 - | - 20 1 | 60 - | | 3 | 35 | | | | | | ~.5 | |
| pH (su) | 120 - | | | 07 | 6.94 | | 7.00 | 7 01 | 701 | 7.00 | 7.01 | 7~ | |
| | 1 1/ | | | | | | 7.00 | | 1.0 | | 1.01 | 7.00 | |
| Temp. (°C) Spec. cond. (μS/cm) | 286.8 2 | N. 20 | 54 15 | 2.3 | 15.1 | 15.2 | 167 | 15,5 | 15,2 | 1876 | 2077 | 287.71 | |
| D.O. (mg/L) | 11222 | 300 | 071 | 12 | 221 | 2.93 | 770 | 2.67 | 2.63 | 2.94 | 2 1.0 | 2.68 | |
| ORP (mV) | 51100 | 18.01 | 36.4 13 | 0.5 | 108.D | 987 | 74.0 | 70.9 | 00.7 | 50.8 | 43.1 | 39.5 | |
| Turbidity (NTU) | 7 11 0 | | | 1916 | | 1.001 | 1,04 | 0.98 | - | 1.36 | 0.99 | 0.82 | |
| Color/tint | Clear - | ופשיי | Ture U | 140 | LOL | (10) | 1107 | 0.10 | 100 | 11.70 | 8011 | 0.12 | |
| Odor | 100 | | | | | | | | | | | | - |
| Odol | None. | | | | | | | | | | | 1 | |
| Sample Data | | | | | | | | | | | | | |
| Sample ID | Date | Tin | ne # | Con | tainers | # F: | iltered | | | R | emarks | | |
| MW-ID | 04/125/18 | IIL | 19 | 4 | | 1 | 0 | IXIL | amhe | V:IXI | L plast | ic; 1x | 15ml. |
| 1 | 1.110 | | | | | | | | | 10 ml | | | |
| 1 | | | | | | | | 7 | -1-1 | | 7 | | |
| | | | *** | V | | - di- | | | | | -0 | | |
| Sampler's Name (print |): Elizer | neth | Stude | bal | ur | | Samp | ler Sign | ature: | tall | L ST | Tushba | h |
| | | | 0, | | | | | | - | | 00 | | |

| Facility: OLD M | IDLAW | 10 | | | Site ID: / | 1w-035 | Sample | er: As | 14 | |
|--|--------------|--------|-------------|------------|-----------------------|---------------------|------------|--------------|--|-------------------------|
| oject Number: (| 13013 - | 0070 | -032 | | Date: 4 | 176118 | | | | FTN Associates, Ltd |
| Site Description | | | . 1 | | | | | | | |
| Type: Monitoring | Well TT | empora | ary Well | Extraction | on Well | Production We | ıll Dev | vatering W | ell Borehole | Other |
| Weather: CLeu | | | | | mp (°F): | 50 | | | | |
| Well Locked? | | 1 | Total Det | oth (ft) V | | Damage/repai | rs needed | 1: .1. | Wind: ~ 1 Ung | |
| Domarka | 7 Z | | | | | | | | M VIGHTIV | 7 |
| Water Level Data | | | 1 | | | | | | | |
| Measuring point des | | | Water | evel Mete | er Make/M | odel No. | | Serial No | o. (Optional): | |
| Mark/notch on T | | | - D | | 144 | 1 p : | | D | 1 40 | |
| North rim of TO | C | | Pre-priniti | | Pre-purge onfirmation | During n purging | | Purge end | After sampling | Remarks |
| Time ("24:00" hr) | | | 123 | | 1810 | 0433 | | 847 | 1127 | |
| Depth to Water (ft) | | | 6.3 | | 6.38 | 6.76 | | 6.76 | 6.73 | |
| Date (mm/dd/yy) | | | 4/23 | | 1/26/15 | | | J- 75 | | |
| LNAPL Thickness (f | | | MONE | | | | | | | 4 |
| DNAPL Thickness (1) Note: Record "S" in Rema | | | NONE | | | | | | - | |
| Field Data Instrument Make/Mo | | Uni | t or Seria | 1 No: | | Pump descr | | | | escription: |
| MILLOW | | | | 5 | | ☐ Bladder | | ted / porta | ıble) 🗌 Disp | osable Teflon |
| | | | | | | Submer | | | A | oosable PVC |
| Purge depth (ft): | | ~27 | 1.5 | | Well goo | es dry during | purging: | ∏ Yes | No | |
| Casing vol. (gal): (where applicable) | | | | | | epth (feet) – de | pth to wat | er (feet)] • | [well ID (inches) | ²] • 0.0408 |
| Time ("24:00" hr) | 0816 | 083 | 6083 | 6 0841 | | 7 | | | P | Remarks |
| Purge vol. (gal) | | | | | 1.2 | | | | * | |
| Purge rate (mL/min) | 30 | _ | _ | | 4_ | | | | | |
| pH (su) | 6.09 | 6.1 | 7 6-18 | 6.19 | 6.19 | | | | | |
| Temp. (°C) | 13.8 | 13.0 | 1 14.3 | 14.5 | 14.7 | | | | | |
| Spec. cond. (µS/cm) | | | | 7 3458 | | | | | | |
| D.O. (mg/L) | 0.84 | 1.14 | | 3 6,95 | | | | | | |
| ORP (mV) | -164,2 | | | 5-175.5 | | | | | | |
| Turbidity (NTU) | 20,39 | | | | 3,42 | | | | | |
| Color/tint | CLEAR | | | | -> | | | | | |
| Odor | YES. | | _ | | -> | | | | | |
| Samula Data | -de-contract | A | - 16- | | | - 1 | | | | |
| Sample Data Sample ID | Date | -1 | Time | # Con | tainers | # Filtered | T | 5 | Remarks | |
| MW-035 | 4/26/ | _ | | 4 | taniers | # Printered | | | Remarks | |
| EB-10 | 1/20/ | 170 | 1340 | 4 | | 0 | 1 11 1403 | 14 H Z | 1 Con Maria | a. 1 11 1 |
| - 15 - 10 | + | | 15-10 | | | | | | of NWA AU | |
|) | | | | - | | | 1 | THUT | M. J. T. C. | 7 |
| Sampler's Name (prin | nt): A1 | Ex | HAMI | *** | | Samo | ler Signa | ture: | 11. Alun | |

| Facility: OLD M | DOL AA | 1) | | | Site ID | : Mu | -03 D | Samp | ler: A5 | 14 | |
|--------------------------------------|-------------------|--|------------------|-----------|-----------|---------|----------------|----------|--------------|-----------------|---------------------------------|
| oject Number: | | 1) | | | Date: | 1/20 | 118 | | | | FTN Associates, Ltd |
| | | | | | | | | * | | | |
| Site Description | | | | - | | | | | | | |
| Type: Monitoring W | | | Well L | | | | | | | | |
| Weather: Partly | Clary | - 1 | | | emp (°F): | | 55 | | . I V | Vind: ≈ 5, | 7 4 |
| Well Locked? Yes | | | | th (ft) 3 | 8,55 | Dam | age/repai | rs need | ed: | | trim ve getita |
| Remarks: | -15 | | 1 | | | | | | | | |
| | 100/ | 4 | | | | | | | | | |
| Water Level Data | | | | | | | | | | | |
| Measuring point descri | | | Water le | | er Make/ | | No. | | Serial No | o. (Optional): | |
| ► Mark/notch on TO North rim of TOC | | - | Pre-pu | | Pre-pur | | During | | Purge | After | |
| Other: | | | initia | | onfirmat | | purging | | end | sampling | Remarks |
| Time ("24:00" hr) | | | 1300 | | 0857 | _ | 0943 | | 0925 | 0946 | |
| Depth to Water (ft) | | | 4,14 | | 4,19 | | 1.25 | | 4,29 | 4,34 | |
| Date (mm/dd/yy) | | | 4/23/ | 1 . | 81/22/ | 16 | | | | 3 | |
| LNAPL Thickness (ft |) (If presen | | YES | | retor i | mil | net mea | some + | Licknes, b. | play | |
| DNAPL Thickness (ft | The second second | THE RESERVE TO THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COL | | ٥ | E prod | ust in | probe : | ip at | the gam. | play | |
| Note: Record "S" in Remar | rks Column | if sheen | s observed | 1. | | | • | | | 0 | |
| Field Data | | | | | | | | | | | |
| Instrument Make/Mod | | Unit | or <u>Serial</u> | No: | | Pu | ımp descr | iption: | | Bailer | lescription: |
| YSI PRU A | | | 5 | | | = | Peristal | | | | posable polyethylene |
| MICHO | 710 | | 5 | | | | Bladder Submer | | ated / porta | | sposable Teflon sposable PVC |
| Purge depth (ft): | | | 33 | - | Well | roes di | | | : TYes | | posable i ve |
| Casing vol. (gal): | | ~ | 77 | | | | | | | - | 22 00400 |
| (where applicable) | | | | _ | = [tota | l depth | (feet) – de | pth to w | ater (feet)] | [well ID (inche | |
| Time ("24:00" hr) | 0901 | 0901 | 0911 | 0916 | 0921 | 0924 | | | | | Remarks |
| Purge vol. (gal) | | | | | | ~.0 | | | | | |
| Purge rate (mL/min) | 140 | | | + | _ | | > | | | | |
| pH (su) | 6.90 | 6.82 | 182 | 631 | 673 | 6.7 | 7 | | | | |
| Temp. (°C) | 15.0 | | | | 15,4 | 15,4 | | | | | |
| Spec. cond. (µS/cm) | 743 | 698 | 694 | 690 | 184 | 684 | 1 | | | | |
| D.O. (mg/L) | | 0.43 | 0,41 | 0.36 | , | 03 | ь | | | | |
| ORP (mV) | -165,4 | | | | 174,8 | | | | | | |
| Turbidity (NTU) | | | | 4,16 | | 197 | | | | | |
| Color/tint | CLEAR | | | | | -> | | | | | |
| Odor | YES | | - | | | - | > | | | | |
| | - | | - 11 | | | | | | | | |
| Sample Data | | | | | | | | | | | |
| Sample ID | Date | | Time | # Co | ntainers | # | Filtered | | | Remark | 8 |
| MW-03D | 4/26/1 | 80 | 176 | 0 | | | 0 | | | | |
| | | | | | | | | | | | |
| 1 | | | | | | | | | | | |
| | | | | | | | | ******* | | | / |
| Sampler's Name (prin | t): A | LEX | HA | MLIN | i i | | Samp | ler Sign | nature: | ller Plu | 1 |

| Facility: OMP | | | | | Site ID | :MV | N-55 | Samp | ler: EW | S | | |
|--|--|------------|---------------|---------|-----------|--------|--------------------|--------------------------|--------------|------------|----------|--|
| oject Number: 02 | 013-0 | 20- | 032 | | Date: | 041 | 25/18 | | | | | FTN Associates, Ltd |
| | | | | | | 1 | 1 | | | | | |
| Site Description | | | | | | | | | | | | |
| Type: Monitoring | | | | | | | | ell De | ewatering | | - | Other |
| Weather: Scatt | | 1000 |) | | emp (°F): | | | | 1 1.1. | Wind: (| aim | |
| Well Locked? Ye | | 10 | tal Dep | th (ft) | 0.50 | Da | mage/repa | irs need | ed: 1000 | & tire | COULT 1 | mound near S side |
| Remarks: Ayea all | Lessibe | 10 211 | ne-no | 1- Mau | brug | au | e to w | er w | ruutto | WIF C | eck | 0-00 |
| | | | 25- | 's n | nol. | | | | | | | |
| Water Level Data | | | e 2to | | 71 | | | | _ | | | |
| Measuring point desc | | ' | | | ter Make/ | Mod | el No. | | Serial N | No. (Opti | onal): | |
| Mark/notch on To | | | NW/ Pre-pu | | Pre-purg | oe. | Durin | o | Purge | T A | fter | |
| Other: | | | initi | | confirmat | | purgin | _ | end | | pling | Remarks |
| Time ("24:00" hr) | | | 114 | 1 | 08810 | | 0832 |) (| 151 | 00 | 112 | |
| Depth to Water (ft) | | | 4,6 | - | 4,70 | | 4.82 | | 4.84 | | 89 | |
| Date (mm/dd/yy) | | C | 4123 | 118 | 04/125/ | | | | | _ | -> | N. |
| LNAPL Thickness (f | | | Vory | | 1 / | | | | | | | |
| DNAPL Thickness (f Note: Record "S" in Rema | | | 101ce | | | _ | | | | | | |
| Note. Record 5 III Reina | uks Cotumn i | I SHECH IS | ODSCIVE | u. | | | | | | | | |
| Field Data | | | | | | | | | | | | |
| Instrument Make/Mo | | Unit o | r Serial | No: | | F | ump desc | | |] | | escription: |
| 1SI Pro P | <u>\(\) \(\)</u> | 井し | | | | 1 | ✓ Perista ✓ Bladde | | ated / por | table) | | oosable polyethylene oosable Teflon |
| MICKOTT | / • | | | × 1 | 1 | | Subme | The second of the second | atea / por | idolo) | | osable PVC |
| Purge depth (ft): | V18 | | | | Well | goes | dry during | purging | : TY | es N | О | |
| Casing vol. (gal): (where applicable) | | | | | = [tota | l dept | th (feet) - d | epth to w | ater (feet)] | • [well II | (inches) | o ²] • 0.0408 |
| Time ("24:00" hr) | 0819 | 0824 | 082 | 1 0831 | 0833 | 08 | 36 0839 | 1084 | 10845 | 0848 | 10851 | Remarks |
| Purge vol. (gal) | | | | | | | | | | 0 .0 | 1.8 | |
| Purge rate (mL/min) | 100 | - | | | | | | | | | K | |
| pH (su) | 6.36 | 6.34 | 6.35 | 0.40 | 10.42 | 10.U | 13 6.44 | 10.46 | 6,44 | 6.45 | 6,45 | , |
| Temp. (°C) | 15,0 | 15,0 | 15,0 | | 15.1 | 15 | 2 15.2 | 15.3 | 15,4 | 15.4 | 15.41 | |
| Spec. cond. $(\mu S/cm)$ | 455.3 | 439.1 | 439: | 3 439. | 4429.0 | 440 | 0.5 440. | 2 440.4 | 14404 | 440.c | 440.9 | |
| D.O. (mg/L) | 1,32 | 0.64 | 0.4 | 10.4 | 2 0.37 | 0.2 | 5 1 0.34 | 0.32 | 0.31 | 0.29 | 0.29 | |
| ORP (mV) | 166.8 | 1319 | 120. | 2115.1 | 0 111.5 | 109 | 1.8101. | 1104.0 | 1104.0 | (O) | 102.4 | |
| Turbidity (NTU) | | 4.64 | - | 1.91 | 1.87 | 2,4 | 13 1,104 | 2.37 | | 1.601 | 1.39 | |
| Color/tint | Clear | | | | | | | | | | - | |
| Odor | Nove | | | | - | | | - V | | | - | |
| Sample Data | & black | Livinge | notes | d fin | 65 | | | | | | 1 | |
| Sample ID | Date | 1 | Time | # Co | ntainers | T | # Filtered | T | | F | Remarks | |
| MW-55 | 04/15/1 | | 153 | 4 | | | 0 | 1v1 | a malas sa | | | 16; 1x125mL |
| Inter On | Mali | n A | ريو | , | | | V | | tici IX | | | |
| | | | | | | | | hin | 10 C (X | 1010 | 7100 | NO . |
|) | | | | 127 | | | | | | | | |
| Sampler's Name (prin | at) et lia | 11.014 | n (1 | 110012 | 1621 | - | Sam | plas Sign | nature: 6 | N.D. H | 11 .000 | dale |

| T | | _ | | | C'A- ID | . 44. | 0.0 | C | 1 | 1511 | |
|-------------------------------------|-------------|----------|-------------|-----------|----------|----------|-----------------|----------|----------------|------------------|-------------------------------|
| Facility: Own Mai | | | | === | | : MW- | | Samp | ler: | 4514 | FTN Associates, Ltd |
| oject Number: C | 3013-0 | 16 20 | -0.5c | | Date: | 4-20 | 78 | | | | FIN Associates, Ltd |
| Site Description | | | | | | | | | | | |
| Type: Monitoring W | ell 🔲 Te | mporar | y Well | Extracti | on Well | Prod | uction We | 11 🔲 D | ewatering W | ell 🔲 Borehole | Other |
| Weather: C(au) | 4 | | | Air Te | mp (°F): | | 62 | | V | Wind: Sme | 9 |
| Well Locked? Yes | | Т | otal Dep | th (ft) 2 | 2.42 | | age/repair | rs need | ed: | Nant | |
| Remarks: | t= 0 | | | | | | | | | | |
| 16 | | m7/1 | | | | | | | | | |
| Water Level Data | | | | | | | | | | | |
| Measuring point descr | iption: | T | Water le | evel Mete | er Make | /Model | No. | | Serial No | o. (Optional): | |
| Mark/notch on TO | | | | | MA | · #) | | | | | |
| North rim of TOC ☐ Other: | | | Pre-pu | | Pre-pur | | During | | Purge | After | Remarks |
| | | | initia | - | onfirma | tion | purging | | end | sampling | |
| Time ("24:00" hr) | | | 1307 | | | | 1233 | | 1246 | 1322 | |
| Depth to Water (ft) Date (mm/dd/yy) | | | 5.31 | | 5,35 | 110 | 5,46 | | 5,46 | 5,48 | |
| LNAPL Thickness (ft) | (If present | t) | 4/23/ | | 1/ 60/ | 10- | | | | * | |
| DNAPL Thickness (ft) | (If presen | t) | | | | | | | | | |
| Note: Record "S" in Remark | cs Column | if sheen | is observed | 1. | | | | | | | |
| Field Data | | | | | | | | | | | |
| Instrument Make/Mod | el No: | Unit | or Serial | No: | | Pu | mp descri | ption: | | Bailer d | escription: |
| 191 PRU | Plus | _ | | 5 | | | Peristal | | | | posable polyethylene |
| MICROT | 10 | _ | | -5 | | - | Bladder Submer | | ated / porta | | posable Teflon posable PVC |
| Purge depth (ft): | ~1 | 7 | | | Well | goes de | y during j | | · [Ves | No No | posable F V C |
| Casing vol. (gal): | 701 | - | | | | | | | | -70 | 21 0.0400 |
| (where applicable) | | | | | | il depth | (feet) – de | pth to w | ater (feet)] • | [well ID (inches |)"] • 0.0408 |
| Time ("24:00" hr) | 1219 | 122 | 1 1220 | 1 1234 | 1239. | 2/3 | 1245 | | |] | Remarks |
| Purge vol. (gal) | | | | · | | 1017 | ~.5 | | | | |
| Purge rate (mL/min) | 80 | 65 | | - | | | \rightarrow | | | | |
| pH (su) | 5,74 | 5.68 | 5.65 | 5,64 | 5.65 | 5.68 | | | | | |
| Temp. (°C) | 160 | 15.0 | 1 150 | 18,9 | 15-8 | 15,4 | 16.0 | | | | |
| Spec. cond. (µS/cm) | 898 | 895 | 894 | | 891 | 888 | 888 | | | | |
| D.O. (mg/L) | 141 | 1,05 | 0.90 | 0.77 | 0.10 | 0.76 | 0.68 | | | | |
| ORP (mV) | -157,3 | 164, | 3 -165.0 | | | 170,7 | | | | | |
| Turbidity (NTU) | 1,27 | | 7.16 | 3.18 | HIMO | 210 | 224 | | | | |
| Color/tint | CLESON | | | | - | _ | > | | | | |
| Odor | NOVE | | | | | - | -> | | | | |
| | | | | | 5.42 | | | | | | |
| Sample Data | | | | 770 0000 | | | | T | | | |
| Sample ID | Date | | Time | | ntainers | #] | Filtered | | | Remarks | |
| MW-85 | 4/20, | | 247 | L | ` | | 0 | | | | |
| IDW-1 | 4/201 | 18 | 410 | L | | | 0 | | | | * |
| | | | | | | | | | | | |
| | | | | | | | | | | All Ari | |
| Sampler's Name (print |): AL | EX | 1+ | AMLIN | | | Samp | ler Sign | nature: | al Men | |

| Facility: OMP | | | | Site ID | Mh | 1-80 | Sample | r: FN | 15 | | | |
|---|-----------|------------|---------------|------------|---------|--|------------|-------------|------------|----------|-----------------------------------|-----------|
| oject Number: 03013- | 0020 | -D32 | | Date: | 1.00 | | - | UIV | | - 1 | FTN Associa | ates, Ltd |
| 0/01 | | | | | 1 | 113 | | | | | | |
| Site Description | | | | - | | | | | | | | |
| Type: Monitoring Well | Tempor | ary Well | | - | | | 1 Dev | | | | Other | |
| Weather: OVERCAST | | | | Γemp (°F): | | | | | Wind: V | | mph | |
| Well Locked? Yes N | 0 | Total D | epth (ft)_ | 44.28 | Dam | age/repair | rs needed | 1: Nor | R, U | neep | ot vyeta | tion |
| Remarks: | | | | | | | | | | , | V | |
| | | | | 1 t x | ^ | 400 | | _ | | | | × × |
| Water Level Data | | | t | ezt: | U | mg/L | | | | 1.60 | y. | |
| Measuring point description: | | Water | level M | eter Make/ | Model | No. | | Serial N | lo. (Optic | nal): | | |
| Mark/notch on TOC North rim of TOC | | | WAT | Pre-purg | | During | | Purge | Λ.4 | ter | 2 | |
| Other: | | | purge tial | confirmat | | purging | | end | sam | | Remar | ks |
| Time ("24:00" hr) | | 130 | | 1157 | | 1233 | | 303 | - | 14 | | |
| Depth to Water (ft) | | - | 16 | 6.72 | , | 7,21 | | 7,31 | 1 | 50 | | |
| Date (mm/dd/yy) | | 104/2 | 3/18 | 04/26/ | | | | | | -3 | | |
| LNAPL Thickness (ft) (If pres | | NUM | 21 | -1 | 1 | | | | | | | |
| DNAPL Thickness (ft) (If pre Note: Record "S" in Remarks Colum | | No | | | | | | | - | - | | |
| Note: Record S in Remarks Colum | m II snec | n is obser | vea. | | | | | | | | | |
| Field Data | | | | | | | | | | | | |
| Instrument Make/Model No: | Un | t or Ser | al No: | | | mp descri Peristalt | | | B | | escription: | |
| TIT FOR PLUS | | # 10 | | | 2 | The state of the s | | ted / port | table) | | oosable polyetl oosable Teflon | |
| - Walan Aa | | - | | | | Submer | | | į | | oosable PVC | |
| Purge depth (ft): | , 40 |) | | Well g | oes dr | y during p | ourging: | □ Ye | s 🗹 No |) | | |
| Casing vol. (gal): | 1,6,6,7 | | | = [total | depth (| (feet) – de | oth to wat | ter (feet)] | • [well ID | (inches) |) ²] • 0.0408 | |
| (where applicable) Time ("24:00" hr) | 8 121 | 3 121 | 8 122 | 3 1228 | 1233 | 1138 | 1243 | 1248 | 1253 | 1125 | 2m43603 | |
| Purge vol. (gal) | 100 | 3 14 | • 177 | 3(14) | 1677 | 100 | 1673 | 100 | 1270 | 1100 | 14,4 | |
| Purge rate (mL/min) 30 | | | | _ | _ | | | | | - | 1 | |
| | | 3070 | 9 7.5 | 8 7.57 | TC | 700 | 7.52 | 7,51 | 7.51 | 7,5 | 1751 | |
| Temp. (°C) | | 0 19 | 1 18 | 2 18.0 | | 16.4 | 16.6 | 171 | 17 1 | | 0 16.8 | |
| Spec. cond. (µS/cm) 377 | 7 38 | 338 | | 1.3 305,6 | 284 | | - | 3/2.3 | 2×2/ | | 6 382.1 | |
| D.O. (mg/L) 3.2 | 770 | | D 2.L | 11111 | 2.00 | | 2.28 | 1 17 | 1.90 | 113 | 7 137 | |
| ORP (mV) 101 | 3 83 | | 4 65 | SING 3 | 104. | 564.10 | v5.01 | 104.1 | 104.1 | 104. | 8 65.6 | |
| Turbidity (NTU) 8.2 | 1.0 | - | - | - | 6.9 | | e.79 | | 6.64 | 5.3 | - | |
| Color/tint Clea | _ | e 1/C | 5 1.4 | 1 (3) | 0. 1 | 1 1.10 | W. II | 1/:0-1 | WIW 1 | 10.9 | 100 | |
| Odor Nov | | | | | | | | | | | 1 | |
| [6/10) | ~[| | | | | | | | | | | |
| Sample Data | | | | | | | | | | | | |
| Sample ID Da | te | Time | # C | ontainers | #] | Filtered | | | R | emarks | | |
| MW-8D 04/2 | 6/18 | 1305 | | 4 | | Ø | IXIL | ambe | rilxil | plast | 16: 14612 | 5ml |
| | • | 1 | | | | 1 | platic | : 1x4 | D'AL a | ass | | |
| ER-9 042 | 0/18 | 1420 | | 4 | | Ø | 101-19 | silic | one to | bing | NWATIN | UWA#8 |
| | | | 7.1 | i . | | | , , | | | 0 | | |
| Sampler's Name (print): EU | tabel | h J | udlba | Nelr | | Samp | ler Signa | ature: | XIN | The | toblah | |

| Facility: OMP | | Site ID: N | 1W-95 | Sampler: | .WJ | |
|--|-------------------|-------------|---|----------------|--------------------------|-------------------------------|
| bject Number: 03013-0020- | -032 | Date: OU | | | | FTN Associates, Ltd |
| Site Description | | | 7 - 1 | | | |
| Type: Monitoring Well Temporary | y Well Extracti | on Well F | Production Wel | l Dewaterir | ng Well Borehole | Other |
| Weather: (Lear | | mp (°F): (0 | | | Wind: Calm | |
| | otal Depth (ft) 2 | | | rs needed: Mr | | |
| Remarks: Well accessible by | side-bu-si | de onu | 1 due t | o creeks | | 40 |
| | , , | | | | | |
| Water Level Data | ezt: 0 mg | IL | | | | |
| Measuring point description: Mark/notch on TOC | Water level Mete | er Make/Mo | odel No. | Seria | ıl No. (Optional): | |
| North rim of TOC | Pre-purge | Pre-purge | During | Purge | | Remarks |
| Other: | . 40 | onfirmation | 1 0 0 | | sampling | Kemarks |
| Time ("24:00" hr) | | 022 | 1054 | 113- | 1255 | |
| Depth to Water (ft) | 5,32 | 5.40 | 6.07 | 6.3 | 1 7.dp | |
| Date (mm/dd/yy) LNAPL Thickness (ft) (If present) | 01-123118 C | 4/24/18 | الما الما الما الما الما الما الما الما | auim der | pite flow-rate | |
| DNAPL Thickness (ft) (If present) | | of 20 v | m corum | mily ces | PIEC FLOOD MAIN | |
| Note: Record "S" in Remarks Column if sheen i | | or po | 110411 | | | |
| Field Data | | | | | | |
| Instrument Make/Model No: Unit | or Serial No: | | Pump descri | | | escription: |
| Instrument Make/Model No: Unit of | #4 | | Peristal | | | posable polyethylene |
| PAICOTPA | # 6 | | ☐ Submer | (dedicated / p | | oosable Teflon oosable PVC |
| Purge depth (ft): ~15 | | Well goe | s dry during p | | Yes No | JOSEPH T |
| Casing vol. (gal): (where applicable) | | | | | et)] • [well ID (inches) |)2] • 0.0408 |
| Time ("24:00" hr) 1032 1039 | 1046 1061 | 11021 | 110 1118 | 1120 113 | | Remarks |
| Purge vol. (gal) | 0 10 10 | 11000 | 110 1110 | 1100 113 Ne | | |
| Purge rate (mL/min) 25 20 | | | | | > MIVI | vice arips |
| pH (su) 0.7 0.10 | (01) 6.12 | 10.170 | 15 6.15 | 10.15 10.1 | 5 | |
| Temp. (°C) 17.4 18.7 | 21.4 22.3 | 22.012 | 3.2 24.1 | 14.9 25 | 1 | |
| Spec. cond. (μS/cm) 818 814 | 820 821 | 8248 | | 821 82 | 5 | |
| D.O. (mg/L) 2.70 2.55 | 2.43 2.25 | | 59 2.76 | 2,21 2,2 | O | |
| ORP (mV) 137.1 113.0 | 99 199 1 | 149 11 | 09 104 1 | 104.6106 | | |
| Turbidity (NTU) 1093 45.71 | 147.88 47.08 | 1171720 | | 35.88 38.9 | | |
| Color/tint Clear light | 1 | 171112 | 170 5115 | 20100 701 | > | |
| Odor New - | Come | | | | 5 | |
| * Suspended | fm 15 | | | | - | |
| Sample Data | | | | 1 | | |
| | | ntainers | # Filtered | | Remarks | |
| MW-95 04/24/18 1 | 135 4 | | | 1x1L am | per; IXIL plai | Stic, 1x125ml |
| 1 1 | 1 | | | | 40 ml glass | |
| \ | | | | | J | |
| | . 0 106 | | | | Pr. III & | tal. |
| Sampler's Name (print): Flight | n studiua | WY | Samp | ler Signature | Jake Judy | lali |

| Facility: DMP | | | | - | Site ID | : M | W-9D | Samp | ler: EW | 1 | |
|---------------------------------------|--|---------|----------------|---------|------------|---------|------------------------|----------|----------------|------------------|-------------------------------------|
| bject Number: | 3013-1) | 07.0- | 037_ | | Date: [| | 24118 | Jump | TOTAL COR |) | FTN Associates, Ltd |
| - | , , | | | | | | | | | | |
| Site Description | W II Clar | | XX7 11 1 | | *** 11 7 | | 1 *** | | | "FD 117 | |
| Type: Monitoring | Well Te | emporar | y Well | | | _ | | п Пр | | | Other |
| Weather: Clear | DN- | T | atal Da | | Temp (°F): | - | | 1 | | Vind: Calm | |
| Well Locked? Y | The second secon | | | | 4290 | | mage/repai | | | L | |
| Remarks: Will o | ICCC 34 IBA | e m |) siac | - by s: | ace an | ~ | aux 10 | area | 0 | | |
| | | | -15 | 0:1 | 5 mg/ | , | | | | | |
| Water Level Data | | | | W. | | 211 | LIN | | T.C. 1137 | (0 (1) | |
| Measuring point des Mark/notch on T | | | Water I NWA | | eter Make/ | /Mod | lel No. | | Serial No | . (Optional): | |
| North rim of TO | | | Pre-pi | | Pre-pur | ge | During | | Purge | After | D 1 |
| Other: | | | initi | | confirmat | | purging | 9 10 | end | sampling | Remarks |
| Time ("24:00" hr) | | | 1237 | | 1141 | | 1206 | | 1218 | 1334 | |
| Depth to Water (ft) | | | 3.75 | ó. | 3.81 | | 4.09 | | 4.10 | 4.13 | |
| Date (mm/dd/yy) | | | 04/22 | | 04/24/ | 18. | | | | | |
| LNAPL Thickness (DNAPL Thickness (| | | Non | _ | | | | | | | |
| Note: Record "S" in Rem | | | is observe | | | | | | | | |
| | | | | | | | | | | | |
| Field Data Instrument Make/Mo | Jal Mar | T T_:4 | an Canin | l NI. | | T | D J | | | D-:1 4- | |
| - SI Pro P | | Unit | or Seria | I No: | | - 1 | Pump descr Peristal | | | | escription: oosable polyethylene |
| Micrott | VV | | #6 | Y | | | | | ated / portal | | osable Teflon |
| | | | , | _, | | | ☐ Submer | sible | | ☐ Disp | osable PVC |
| | 37 | | | | Well g | goes | dry during | purging | g: [Yes | No No | |
| Casing vol. (gal): (where applicable) | | | | | = [tota | ıl depi | th (feet) - de | pth to w | ater (feet)] • | well ID (inches) | ²] • 0.0408 |
| Time ("24:00" hr) | 1149 | 115 | 1120 | 2/120 | 0 1212 | 121 | 8 | | | F | Remarks |
| Purge vol. (gal) | | 1132 | | | | 100 | 2 | | | with vice | avins |
| Purge rate (mL/min) | 35 | | | | | | 3 | | | <u> </u> | J. P |
| pH (su) | 10.102 | 6.55 | 10.5 | 00.5 | 76,58 | 10.9 | 8c | | | | * |
| Temp. (°C) | 18.0 | 19.2 | 215 | 120 | 229 | 23 | 3 | | | - | |
| Spec. cond. (µS/cm) | 673 | Levex | 670 | level | 1000 | 6 | 0 | | | | |
| D.O. (mg/L) | 1.164 | 0.98 | 0.90 | 11,0 | | 1.1 | | | | | |
| ORP (mV) | -9.4 | -125 | -13.0 | 1-13: | 2-13.4 | -14 | ,5 | | | | |
| Turbidity (NTU) | 16.80 | 5.4 | 14.8 | 17.9 | 17.62 | _ | | | | | |
| Color/tint | Clear | | | | | - | 7 | | | | |
| Odor | NOW | 1 | | | | - | > | | | | |
| Comple D. (| | | | | | | | | | | |
| Sample Data Sample ID | Date | | Time | # C | ontainers | - | # Filtered | | | Remarks | |
| MW-9D | 1 . | | 1120 | | L | | r K | Juli | Ambal. | | Wilding 4 |
| עור־עען יי | 04/29 | 10 | LW | | T | + | y | IXIL | WILDER | IN IL PIQUE | ic) 1x125 mt |
| | | | | | | - | | plan | C/ 1×401 | nt glass | |
|)—— | | | | | | | | | | - | |
| Sampler's Name (pri | nt): tilio | 0/00/ | A Ch | idela | Elcor | | Samn | ler Sign | nature: O | July Stud | Jahra |
| - Traine (pri | EVI (| WAY | VI (III | MAN | MILL | | Jamp | TOT DIE | A | WILLY CHANGE | Malina |

| Site Description Type: | Facility: DMP | | | | | Site ID: | MW. | 105 | Sampl | er: ‡W. | 5 | |
|--|---|---|----------|------------|------------------|-----------|----------|-----------|-----------|---------------|------------------|-------------------------|
| Site Description Type: Monitoring Well Temporary Well Extraction Well Production Well Dewatering Well Borchole Other Weather: (20) | | 5013- | 0020 | 1-03 | 2 | | | • | | Cov | | FTN Associates, Ltd |
| Type: Monitoring Well Temporary Well | | | | | | | 4 | 1 | | | | |
| Weather: Clay | 7 | Vall DTa | mnorar | v Well [| TExtracti | on Well F | 7 Produ | tion We | 11 | watering We | il 🖂 Borehole [| Other |
| Well Locked? | | ven [] le | inporar | y Well [| | | | tion we | п Пре | | | |
| Water Level Data | | e 🗆 No | Т | otal Den | | | Dama | re/renai: | rs neede | d: 110 km | at 100 eta- | han |
| Water Level Data | Remarks: \\/\0\/\ | a Ctalor | livol | MINNI | $\Omega M\Omega$ | HeN- ON | N AC | PIGE | Flu 1 | h Cido | 10) Siele | ()01) |
| Mask fin to the forc | Memaras. AACM 11 | it stort | virgi | r outi ni | y | NOT, OF | y ac | JUINI | Q M | 11 2100 | ry-sruc | |
| Mask finish on TOC | Water Level Data | | | F | p2+ s | () mg | IL | | | | | |
| Disposable PVC Pre-purge Pre-purge Purging Purge After Sampling Remarks | Measuring point desc | | | Water le | evel Met | | • | lo. | | Serial No | . (Optional): | |
| Other: | | | - | | | D | | Daning | | Dunga | A A | |
| Time ("24-00" hr) | | | | | | | | | | - | | Remarks |
| Depth to Water (ft) | | | | | | | 1 | | | | | |
| Date (mm/dd/yy) | | | | | | - 1 | | | | 1 | | |
| DNAPL Thickness (ft) (If present) | Date (mm/dd/yy) | | | | 118 1 | | K - | | _ | | 7 | |
| Note: Record "S" in Remarks Column if sheen is observed. | LNAPL Thickness (ft | |) | Non | e e | 11 | | | | | | |
| Field Data Instrument, Make/Model No: | | - Contract of the Contract of | | | | | | | | | | |
| Casing vol. (gal) Casi | Note: Record "S" in Remai | rks Column | ii sneen | is observe | 1, | | | | | | | |
| Peristatic Disposable polyethylene Disposable polyethylene Disposable reflon Disposable PVC Purge depth (ft): Well goes dry during purging: Yes No No No No No No No N | Field Data | | | | | | | | K 41 | | | |
| Bladder (dedicated / portable) Disposable Teflon Disposable PVC | Instrument Make/Moo | del No: | Unit | or Serial | No: | | | | | | | |
| Submersible Disposable PVC | | | | | | | | | | ited / nortal | | |
| Casing vol. (gal): where applicable) Time ("24.00" hr) | , , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | , • | | 4 | | | | | 11. | nod / portuc | | |
| Containers Filtered Filter | Purge depth (ft): | ~15 | | | | Well g | oes dry | during 1 | purging: | ∐ Yes | No | |
| Where applicable) Purge vol. (gal) Purge rate (mL/min) 55 Permp. (°C) 185 17.7 19.3 10.0 10.5 10.9 10.19 Pope. cond. (μS/cm) 1282 17.0 17.0 12.08 17.05 17.04 | Casing vol. (gal): | | | | | = [total | depth (f | eet) – de | pth to wa | ter (feet)] • | well ID (inches) | ²] • 0.0408 |
| Purge vol. (gal) Purge rate (mL/min) 55 Purge rate (mL/min) 50 Purge | | ISS | 1200 | lino | 11002 | | | | | Т | | |
| Purge rate (mL/min) 55 — | | 1050 | (05 | plan | 1005 | LUCU | 100 | WIL | | - | | |
| OH (su) OH | | 55 | | | | | | | | | MANT MA | grups |
| Temp. (°C) | | | 1011 | 1 io 1/ | fo 10 | 11010 | 10 10 | 10.10 | | - | | |
| Spec. cond. (µS/cm) 1282 1770 170 1208 1205 1204 12 | | | 0.10 | | | | 200 | 20.19 | 10.19 | + | | |
| D.O. (mg/L) 3.58 1.36 1.40 1.36 1.38 1.35 1.35 DRP (mV) Vol.3 82 16 83.0 83.5 87.9 89.4 90.4 92.0 Turbidity (NTU) Color/tint Clear Color/tint Clear Color-tint Color-tint Clear Color-tint Clear Color-tint Color-tint Color-tint | | 120 | 111 | 1 | | | | | | | | |
| DRP (mV) | | 258 | 121 | | | 1205 | 100 | | _ | - | | |
| Turbidity (NTU) | | | - | - | _ | 070 | 0011 | 001 | - | | | |
| Color/tint Clear Dodor Nove Sample Data Sample ID Date Time # Containers # Filtered Remarks NW-105 04/24/18 1010 4 9 1×1 amber: 1×1 plastic; 1×125 mL plastic; 1×40 mc glass Poly 4 silicone tuding: NWA#1; NWA#8 | | | | | | 412 | 3100 | 5 100 | | | | |
| Sample Data Sample ID Date Time # Containers # Filtered Remarks MW-105 04/24/18 1010 4 9 1×125mL Platic, 1×40 mc glass Poly 4 silicone tuding: NWA#1; NWA#8 | | | | 71-10 | 4.01 | 9.15 | 300 | 2.04 | 7:00 | | | |
| Sample Data Sample ID Date Time # Containers # Filtered Remarks MW-105 04/24/18 1016 4 9 1×1L amber; 1×1L plastic; 1×125 mL Plastic, 1×40 mc glass Poly 4 silicone tuking; NWA#1; NWA#8 | | 1 1 | | | | | | | | | | |
| Sample ID Date Time # Containers # Filtered Remarks MW-105 04/24/18 16/6 4 9 1x1L amber; 1x1L plathic; 1x125mL plathic; 1x40 mL glass Poly & Silicone tuding; NWA#1; NWA#8 | Odol | MOROS | | | | | | | 7 | | | |
| EB-5 04/24/18 16/6 4 9 1x1c amber; 1x1c plastic; 1x125mc plastic; 1x40 mc glass EB-5 04/24/18 17/18 4 poly 4 silicone turing; NWA#1; NWA#8 | Sample Data | | | - | | | | | | | | |
| EB-5 04/24/18 1718 4 poly & silicone tuking; NWA#1; NWA#8 | | Date | | | # Co | ntainers | # F | iltered | | | Remarks | |
| EB-5 104/24/18 1718 4 P poly & silicone tuning; NWA#1; NWA#8 | MW-101 | 04/24, | 18 | 10/10 | 4 | | 9 | 5 | | | | |
| | CD C | Mila | .6 | 7.0 | | t | | * | | C, IXU | 10 mc glas | 1 |
| Complex's Name (print); Ellisal all Chadala Vale | 16-5 | 4/14/ | 11 1 | 118 | | 1 | 1 | 2 | DOM | of Silvicon | u tuang; n | JWA+1; NWA+B |
| Sampler's Name (print): Which the Sampler Signature: Salith Auch and Sampler Signature: | Sampler's Name (prin | t): Eliu | about | h Sh | rdela | ler | | Samp | ler Sign | ature: | alth St | Tollak |

| Facility: DMP | | Site ID: N | W-10D | Sampler: EW | 12 | |
|--|--------------------|--------------|-------------------|-------------------------|---------------------|--------------------------------------|
| pject Number: 030 3 - 5020 | 0-032 | Date: 4 | 24/18 | | | FTN Associates, Ltd |
| Site Description | | | | | | |
| Type: Monitoring Well Tempora | ry Well Extract | ion Well 🔲 I | Production Wel | Dewatering \ | Well Borehole | Other |
| Weather: Clear | Air T | emp (°F): | 18 | | Wind: COUM | |
| Well Locked? Yes No | Total Depth (ft) 3 | 7.30 1 | Damage/repair | rs needed: UNI | out vegeta | tion |
| Well Locked? Yes No Remarks: Water flowing s | landing ar | bund in | ell, once | y accessible | ce by side | -by-side |
| Water Level Data | Fe? | to m | 9/1 | | * | |
| Measuring point description: | Water level Met | | | Serial N | No. (Optional): | |
| Mark/notch on TOC | NWAHI | | | | | |
| North rim of TOC | Pre-purge | Pre-purge | During | | After | Remarks |
| Other: | | confirmation | 4 0 0 | end (530) | sampling | |
| Time ("24:00" hr) | 1250 | 1429 | 1452 | | 1709 | |
| Depth to Water (ft) Date (mm/dd/yy) | | 2.13 | 2,45 | 2.45 | 2.80 | |
| LNAPL Thickness (ft) (If present) | None | 14/21/10 | | | 1 | |
| DNAPL Thickness (ft) (If present) | None | | | | | |
| Note: Record "S" in Remarks Column if sheet | is observed. | | | 4) | | |
| Field Data | | | | | | |
| Instrument Make/Model No: Unit | or Serial No: | | Pump descri | ption: | | scription: |
| 431 WO PIOS # | 6 | | Peristal | tic (dedicated / por | | osable polyethylene osable Teflon |
| MICHALL | 0 | | Submer | | | osable PVC |
| Purge depth (ft): ~32 | | Well goe | s dry during p | ourging: TY | es No | |
| Casing vol. (gal): (where applicable) | | = [total de | epth (feet) - dep | pth to water (feet)] | • [well ID (inches) | ²] • 0.0408 |
| Time ("24:00" hr) 1437 144 | 12 1447 1451 | 145710 | 106 1513 | 1518 1514 | 1530 1530 R | lemarks |
| Purge vol. (gal) | | | 100 1010 | 1010 1011 | N.4 | with vice |
| Purge rate (mL/min) 35 — | | 20 - | -> 30 | 15 - | | grips |
| pH (su) 7.63 7.24 | + 7.23 7.29 | | .29 7.30 | | 7 32 7 30 | JANPA |
| Temp. (°C) 17.4 20. | 1 20.7 21.2 | - 11.41 | 2.1021.10 | 20.7 21.5 | 7.32 7.32 | |
| | 8 500.4500. | 349994 | 09.105001 | 902 1 499.0 | 502.0 501.0 | |
| D.O. (mg/L) 2.03 0.8 | | A | 07 0.85 | | 0.78 0.88 | |
| ORP (mV) -111.7-115. | 1 / | | | -119.10-103.0 | | |
| Turbidity (NTU) 31.12.12.1 | 2213.54 [6.24 | 110.5516 | 53 14.30 | | 5, 25 15.42 | |
| Color/tint Clear Cle | | | 1 11.70 | | | |
| Odor Nove - | | | | | | |
| Loupende | d fines | | | | | |
| Sample Data | | | | | | |
| Sample ID Date | | ntainers | # Filtered | | Remarks | |
| MW-10D 04/24/18 | 1538 4 | | Ø | IXIL amber | ; IXIL plast | C; 1 x 125 mc |
| | | | | | 40 mc grass | |
| | | | | , | J | |
| | | | | | - 1 - 1 - 0 | × 1. |
| Sampler's Name (print): FUZADER | 1 Atudella la | O.V | Samp | ler Signature:رحم | Jalil Kirdi | truh_ |

| Facility: OMP | | | | | Site ID: | MW- | -125 | Sample | er: EW | J | | |
|---|----------|--------------|-----------|------------|--------------|----------|------------|-----------|-------------|------------|---------------|---------------------------|
| oject Number: 03 | 013-00 | 20 | -032 | | Date: | 84/20 | 1/18 | | | | | FTN Associates, Ltd |
| Site Description | | | | | | | 1 | | | | | |
| Type: Monitoring W | ell Temp | orary | Well | Extraction | on Well | Produc | ction Wel | l Dev | watering V | Vell 🗍 B | orehole [| Other |
| Weather: Clear | | | Ī | | mp (°F): | 57 | | | | Wind: S | | |
| Well Locked? Yes | No No | Tot | tal Depth | (ft) 2 | 1.88 | Dama | ge/repair | rs neede | d: Now | | | |
| Remarks: Area onl | y access | ible | my sid | le-by | -side | due t | o cree | K | | - | | |
| | | | | | | | | | -1 | | | |
| Water Level Data | Fe | 1 | 0 mg | 1 | | | | | | | | |
| Measuring point descr | | N | Vater lev | | er Make/I | Model N | No. | | Serial N | o. (Option | onal): | |
| Mark/notch on TO | C | 1 | Pre-purg | | Pre-purg | e | During | - | Purge | I A | fter | |
| Other: | | | initial | | onfirmati | | purging | | end | | pling | Remarks |
| Time ("24:00" hr) | | | 1117 | (| 0827 | | 0851 | | 999 | 091 | | |
| Depth to Water (ft) | | | 2.16 | | 2.17 | | 1.30 | 1 | .32 | 2. | 37 | |
| Date (mm/dd/yy) | | 0 | 4123 | Y C | M 24 | 18 . | | | _ | | \rightarrow | |
| LNAPL Thickness (ft) DNAPL Thickness (ft | | - | | | . , | | | | | | | |
| Note: Record "S" in Remark | 10.1 | heen is | observed | _ | | | | | | | | |
| 47 | | 14 m T. 11 m | | | | | | | | | | |
| Field Data | al No. I | Init or | Coriol N | Jos | | Dun | np descri | ntion | | | Poiler de | escription: |
| Instrument Make/Mod | el No. | TO | Serial N | NO: | | | Peristalt | | | ' | | oosable polyethylene |
| MICROTPIN | | #1 | | | | 16 | Bladder | (dedica | ted / port | able) | ☐ Disp | osable Teflon |
| 1 | | | | | | | Submer | | | | | oosable PVC |
| | 219 | | | | | | during p | | | - | | |
| Casing vol. (gal): (where applicable) | | | | | =[total | depth (f | eet) – dep | pth to wa | ter (feet)] | • [well ID | (inches) | o ²] • 0.0408 |
| Time ("24:00" hr) | 0835 0 | 840 | 0845 | 0848 | 0851 | 0854 | 0857 | 0900 | 0903 | 0906 | F | Remarks |
| Purge vol. (gal) | | | | 9-10 | | | | | | 2.8 | | |
| Purge rate (mL/min) | 110 1 | 10 | 85 | -> | 100 | | | | | - | | |
| pH (su) | 5.975 | 58 | 5,50 | 5,56 | 550 | 5.54 | 554 | 555 | 5.55 | 5,55 | | |
| Temp. (°C) | | 5.1 | 15.4 | 15.4 | 15.3 | | 15,4 | 15.4 | | 15.4 | | |
| Spec. cond. (µS/cm) | 129.10 | 17.7 | 95.0 | 94.9 | | 94.5 | | 94.6 | 94.6 | 94.10 | | |
| D.O. (mg/L) | 180 0 | .73 | 0.75 | 0.67 | 10 | 0.50 | | 0.51 | 0.50 | 050 | | |
| ORP (mV) | 139.513 | 91.8 | 139.60 | 134.0 | 134.9 | 134.1 | 1345 | 131.6 | 130.7 | 130.5 | | |
| Turbidity (NTU) | 31.93 17 | 1.53 | 6.71 | 4.33 | 4.06 | 4.00 | 13.68 | 3.12 | 3.63 | 257 | 4 | |
| Color/tint | Clear | | -> | Clear | | | - | | | -, | | |
| Odor | Nine- | | | | | | | | | -> | 1 | |
| + SUS | penaed | tine | SCHOOL | m) | | | | | | 7 | | |
| Sample Data Sample ID | Date | 7 | ime | # Ca- | tainers | #17 | iltered | | | T | lemarks | |
| | | _ | | # COII | namers | # 1 | Mered | 1.4 11 | وتباريا | | | \\.20" |
| 1.11/-172 | 04/24/11 | 1 0 | 108 | 4 | | 1 | 0 | 1411 | plastic | | umb | er; 1x 125 ml plast |
| DUP-MW-12) | וונונונט | 7 60 | 170 | 7 | | K | 7 | 100 | | 01615 | House | alws: (x)cpialt |
| DOL LIMATES | Mall | 10 | 14 | | | X | | 1 × 17 | 5 ml 1) | altic. | will | glass (x 1c pialt |
| Sampler's Name (print |): Eliza | 108 H | N St | untol | palcer | | Samp | | P | talith | Stud | libali |
| , (F | - VY/W | 1/2 1 | 4 | WALL | WIN | | | | | - NA | Jones | - V ION - |

| Facility: Old / | 11 dlane | d | | | Site ID | : MI | N-165 | Sample | er: 🚹 | 514 | | |
|---|---|---|--|--|--|---|---|---|---|--|---|--|
| | 3013- | | -032 | | Date: | 4-20 | 4-18 | | | | | FTN Associates, Ltd |
| Site Description | | | | | | | | | | | | |
| Type: Monitoring W | ell Te | трогагу | Well [| Extracti | on Well [| Prod | uction We | l De | watering | Well | Borehole [| Other |
| Weather: Cle | iv | | | Air Te | mp (°F): | | 60 | | | Wind: | 5mg4 | |
| Well Locked? Yes | | То | tal Dept | | | N- | age/repair | rs neede | d: +(1) | u ve | getatr | |
| Remarks: 724; | | | | | | | | | | |) = 14.11 | , |
| Water Level Data | | | | | | | | | | | | |
| Measuring point descr | | 1 | Water le | | | Model | No. | | Serial 1 | No. (Op | tional): | |
| Mark/notch on TO North rim of TOC | С | - | | VWA | #3 Pro 2011 | - | Dumin | - | Д агио о | | After | |
| Other: | | | Pre-pur initial | | Pre-purg onfirmat | | During purging | | Purge end | | mpling | Remarks |
| Time ("24:00" hr) | | | 1201 | | 0827 | | 3849 | | 120 | | 47 | |
| Depth to Water (ft) | | | 6.41 | | 6.6 | | 6.67 | | .67 | | 68 | |
| Date (mm/dd/yy) | | (| 1/23/1 | 8 4 | 1-24-1 | | - 07 | | | - 0, | > | |
| LNAPL Thickness (ft) | |) | None | | | | | | | | | |
| DNAPL Thickness (ft) | | | None | | | | | | | | 1 | |
| Note: Record "S" in Remark | ts Column i | if sheen is | observed. | | | | | | | | | |
| | | | | | | | | | | | | |
| Field Data | | | | | | | | | | | | |
| Instrument Make/Mode | | Unit o | r Serial 1 | No: | | | mp descri | | | | Bailer des | |
| Instrument Make/Mode ソクエ Pル P | 45 | Unit o | 5 | No: | | | Peristal | ic | . 17 | . 11 | ☐ Dispe | osable polyethylene |
| Instrument Make/Mode | 45 | Unit o | | No: | | | Peristali Bladder | ic (dedica | ted / por | table) | ☐ Dispe | osable polyethylene osable Teflon |
| Instrument Make/Mod YII PRO PU MICROTPO | 45 | | 5 | No: | Wells | | Peristali Bladder Submer | ic (dedica sible | | | ☐ Dispe | osable polyethylene |
| Instrument Make/Mode ソウエ PRU PU ノー バエ CRル アアン Purge depth (ft): | 45 | Unit o | 5 | No: | | goes dr | Peristali Bladder Submer y during p | ic (dedica sible ourging: | Y | es 🗾 | ☐ Dispo ☐ Dispo ☐ Dispo | osable polyethylene osable Teflon osable PVC |
| Instrument Make/Mode y 1 Pro Por Purge depth (ft): Casing vol. (gal): (where applicable) | , | ~13 | 5 | | = [total | goes dry | Peristali Bladder Submer y during p | cic (dedica sible ourging: | ter (feet) | es Z | Dispo | osable polyethylene osable Teflon osable PVC |
| Instrument Make/Mode Y 1 Pro Por Purge depth (ft): Casing vol. (gal): (where applicable) | 45 | ~13 | 5 | | | goes dr | Peristali Bladder Submer y during p | cic (dedica sible ourging: | ter (feet) | es Z | ☐ Dispo ☐ Dispo ☐ Dispo | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Fime ("24:00" hr) | , | ~13 | 5 | | = [total | goes dry | Peristali Bladder Submer y during p | cic (dedica sible ourging: | ter (feet) | es Z | Dispo | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) | , | ~13 | 5 | | = [total | goes dry | Peristali Bladder Submer y during p | dedica (dedica sible ourging: oth to wa | ter (feet) | es Z | Dispo | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Fine ("24:00" hr) Purge rate (mL/min) | 0836 | ~13 | 5 | 0853 | = [total | goes dry | Peristali Bladder Submer y during p (feet) – dep | cic (dedica sible ourging: | ter (feet) | es Z | Dispo | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) | 0836 | ~23 08 43 | 5 5 0848 6.55 | 0853 | = [total | goes dry | Peristali Bladder Submer y during p (feet) – dep | dedica (dedica sible ourging: oth to wa | ter (feet) | es [] : [well] : C916 | Dispo | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) | 0836 95 6.57 | ~23 08 43 | 0848 | 0853 | = [total 085.7 | goes dry | Peristali Bladder Submer y during p (feet) – dep | ic (dedica sible burging: oth to wa 0910 | (J.6) | es | Dispo | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) | 0836 95 6.57 | 08 43 08 50 | 0848 | 0853 6.53 16.5 | = [total 0857 6.54 16.6 | goes dr. 1 depth (| Peristali Bladder Submer y during p (feet) – dep 0909 | ic (dedica sible burging: oth to wa 0910 | (J.4) (J.4) (J.4) (J.7) (J.7) | es / : [well] : [wel | Dispo | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Purge vol. (gal) Purge rate (mL/min) pH (su) Pemp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) | 0636 95 6.57 16.0 962 | -23 0843 - 6.50 16.1 967 | 0848 6.55 16.3 969 | 0853 6.53 16.5 963 | = [total 0%57 6.54 16.6 | goes dr. depth (| Peristali Bladder Submer y during p (feet) – dep 0909 6.59 17.0 0935 | dedica sible ourging: oth to wa 0910 lb.9 0973 l.07 | (J.4) (J.4) (J.4) (J.7) (J.7) | C916 | Dispo | osable polyethylene osable Teflon osable PVC |
| | 0636 95 6.57 16.0 962 2.73 | -23 0843 -6,50 16,1 967 1.38 -121.3 | 5 5 5 0848 6.55 16.3 969 1.16 | 0853 6,53 16.5 963 1,10 | = [total 0%5.7 6.54 16.6 1,02 | Goes dr. depth (0900) 6,56 16,9 950 1,00 | Peristali Bladder Submer y during p (feet) – dep 0909 1.59 17.0 0935 | dedica sible ourging: oth to wa look of 10 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 | [] Y ter (feet)] (A13 (.0) (7.0 (917 (989 | C916 C916 C916 C916 C916 C916 C916 C916 | Dispo | osable polyethylene osable Teflon osable PVC |
| Instrument Make/Mode YIT PRO PU Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) | 0636 95 6.57 16.0 962 2.73 | -23 0843 -6,50 16,1 967 1.38 -121.3 | 0848 6.55 16.3 969 | 0853 6,53 16.5 963 1,10 | = [total 0%5.7 6.54 16.6 955 1,02 -114,9 | Goes dr. depth (1000000000000000000000000000000000000 | Peristali Bladder Submer y during p (feet) – dep 0909 6.59 17.0 0935 1.07 | dedica sible ourging: oth to wa look of 10 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 | (J.6) (J.6) (J.7) (J.7) (J.7) (J.89 (J.89) | es / : [well] • [wel | Dispo Disp | osable polyethylene osable Teflon osable PVC |
| Instrument Make/Mode YHI PW PU Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint | 0636 95 16.0 962 2.73 723,7 24.10 | -23 0843 -6,50 16,1 967 1.38 -121.3 | 5 5 5 0848 6.55 16.3 969 1.16 | 0853 6,53 16.5 963 1,10 | = [total 0%5.7 6.54 16.6 955 1,02 -114,9 | Goes dr. depth (1000000000000000000000000000000000000 | Peristali Bladder Submer y during p (feet) – dep 0909 6.59 17.0 0935 1.07 | dedica sible ourging: oth to wa look of 10 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 | (J.6) (J.6) (J.7) (J.7) (J.7) (J.89 (J.89) | C916 C916 C916 C916 C916 C916 C916 C916 | Dispo Disp | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Purge vol. (gal) Purge rate (mL/min) (pH (su) Pemp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Color/tint Odor | 0636 95 6.57 16.0 962 2.73 -123.7 24.10 CLEAR | -23 0843 -6,50 16,1 967 1.38 -121.3 | 5 5 5 0848 6.55 16.3 969 1.16 | 0853 6,53 16.5 963 1,10 | = [total 0%5.7 6.54 16.6 955 1,02 -114,9 | Goes dr. depth (1000000000000000000000000000000000000 | Peristali Bladder Submer y during p (feet) – dep 0909 6.59 17.0 0935 1.07 | dedica sible ourging: oth to wa look of 10 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 | (J.6) (J.6) (J.7) (J.7) (J.7) (J.89 (J.89) | C916 C916 C916 C916 C916 C916 C916 C916 | Dispo Disp | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Purge rate (mL/min) (pH (su) Pemp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Purbidity (NTU) Color/tint Odor Sample Data | 0636 95 6.57 16.0 962 2.73 -123.7 24.10 CLEAR NONE | 08 43 | 0848 6.55 16.3 969 1.16 -117.1 | 6,53 16.5 963 1.10 -116.1 | = [total 0%5.7 6.54 16.6 955 1,02 -114,9 14,60 | Goes dr. depth (1000000000000000000000000000000000000 | Peristali Bladder Submer Submer during p (feet) – de 0909 17.0 0935 1.07 -173.3 24.13 | dedica sible ourging: oth to wa look of 10 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 lb.9 | (J.6) (J.6) (J.7) (J.7) (J.7) (J.89 (J.89) | es / well - [well - [w | Dispo Disp | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Purge vol. (gal) Purge rate (mL/min) Purge rate (mL/min) Ph (su) Femp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) DRP (mV) Furbidity (NTU) Color/tint Odor Sample Data Sample ID | 95 6.57 16.0 962 2.73 -123.7 24.10 CLEAR NOWE | 08 43 08 43 6.50 16.1 96.7 1.38 -121.3 20.29 | 0848 6.55 16.3 969 1.16 -117.1 | 6.53 16.5 963 1.10 -116.1 15.4] | = [total 0%5.7 0.54 16.6 19.55 19.60 14.60 | Goes dr. depth (1000000000000000000000000000000000000 | Peristali Bladder Submer y during p (feet) – dep 0909 6.59 17.0 0935 1.07 -173.3 Z4.13 | ic (dedica sible ourging: oth to wa look of 10 look of | (J.6) (J.6) (J.7) | es 7 : [well] C916 C916 C910 C900 C90 | Dispo Disp | osable polyethylene osable Teflon osable PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) Purge vol. (gal) Purge rate (mL/min) pH (su) Pemp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data Sample ID | 0636 95 6.57 16.0 962 2.73 -123.7 24.10 CLEAR NONE | 08 43 08 43 6.50 16.1 96.7 1.38 -121.3 20.29 | 0848 6.55 16.3 969 1.16 -117.1 | 6,53 16.5 963 1.10 -116.1 | = [total 0%5.7 0.54 16.6 19.55 19.60 14.60 | Goes dr. depth (1000000000000000000000000000000000000 | Peristali Bladder Submer Submer during p (feet) – de 0909 17.0 0935 1.07 -173.3 24.13 | ic (dedica sible ourging: oth to wa 0910 lb.9 G973 l.07 T78.0 ll.16 | (1.6) (2.0) (1.7.0) (1.7.0) (1.7.0) (1.7.0) (1.7.0) (1.7.0) (1.7.0) | C916 C916 C916 C910 C910 C910 C910 C910 C910 C910 C910 | Dispo Disp | osable polyethylene osable Teflon osable PVC |
| Instrument Make/Mode YII PW PU Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data Sample ID | 95 6.57 16.0 962 2.73 -123.7 24.10 CLEAR NOWE | 08 43 | 0848 6.55 16.3 969 1.16 -117.1 | 6.53 16.5 963 1.10 -116.1 15.4] | = [total 0%5.7 0.54 16.6 19.55 19.60 14.60 | Goes dr. depth (1000000000000000000000000000000000000 | Peristali Bladder Submer y during p (feet) – dep 0909 6.59 17.0 0935 1.07 -173.3 Z4.13 | ic (dedica sible ourging: oth to wa of 10 | (J.0) (J.0) (J.0) (J.0) (J.0) (J.0) (J.0) (J.0) (J.0) | 6.62 17.1 0910 080 -1300 11.78 | Disposition Dispos | osable polyethylene osable Teflon osable PVC |

| Facility: Old Min | 972 | 10 | A SHARE SEE SEE SEE | | Site ID: 7 | W-161) | Samp | ler: Ash | + | | |
|--|------------|----------|---------------------|--------|--------------------|------------------|-----------|----------------|-------------------|-------------------------------------|--|
| Facility: Old MAN | 3013-00 | 20-02 | led | | Date: 4- | | <u> </u> | 7171 | | FTN Associates, Ltd | |
| | | | | | | | | ÷ | | | |
| Site Description | | | | | | | | | | | |
| Type: Monitoring V | Vell Te | emporar | y Well | | | | il D | | | | |
| Weather: Clen | | | | | mp (°F): | 60 | | W | Vind: 5mg | | |
| Well Locked? Ye | s 🗌 No | Т | otal Dept | h (ft) | Z.03 I | Damage/repai | rs need | ed: $+n$ | ~ 9/ASS | | |
| Remarks: | 20 04 | 11- | | | | | | | | | |
| 10 . 0 | To rug. | | | | | | | | | | |
| Water Level Data | 4 | | | | | | | | | | |
| Measuring point desc | | | Water le | | er Make/Mo | | | Serial No | . (Optional): | | |
| ☐Mark/notch on TO ☐Morth rim of TOO | | - | Pre-pu | | レレル ゼ Pre-purge | During | . | Purge | After | | |
| Other: | , | | initia | | onfirmation | | - | end | sampling | Remarks | |
| Time ("24:00" hr) | | | 1108 | | 1924 | 0934 | | 2946 | 1058 | | |
| Depth to Water (ft) | | | | | | | | | | | |
| Date (mm/dd/yy) | | | | | | | | | | | |
| LNAPL Thickness (ft | | | None | | | | | | * | | |
| DNAPL Thickness (f Note: Record "S" in Rema | | | is observed | | | | | | | | |
| note. Record 5 in Rema | iks Column | II SHOOM | is obscived | | | | | | | | |
| Field Data | | | | | | - | | | | | |
| Instrument Make/Mod | | Unit | or Serial | No: | - | Pump descr | | | | escription: posable polyethylene | |
| MICRU TPW | 5 | - | 5 | | | | | ated / portal | | oosable Teflon | |
| | | | | | | Submer | | | | oosable PVC | |
| Purge depth (ft): | | 35 | 4 | | Well goe | s dry during | purging | : | No | | |
| Casing vol. (gal): (where applicable) | | | | | = [total de | epth (feet) - de | pth to w | ater (feet)] • | [well ID (inches] | 02] = 0.0408 | |
| Time ("24:00" hr) | 0929 | 0935 | Cano | | | | | | I | Remarks | |
| Purge vol. (gal) | | | | 2.3 | | | | | | | |
| Purge rate (mL/min) | 70 | | | | | | | | | | |
| pH (su) | 7,29 | 7,74 | 7.33 | 7,33 | | | | | | | |
| Temp. (°C) | 17,1 | 17,4 | 17.6 | 19.5 | | | | | | | |
| Spec. cond. (µS/cm) | 601 | 597 | 598 | 596 | | | | F1 | | | |
| D.O. (mg/L) | 1.66 | 0.39 | 0,75 | 0.79 | | | | | | | |
| ORP (mV) | -159.7 | - | | -170,4 | | | | | | | |
| Turbidity (NTU) | 10,73 | 1255 | 11.96 | 16-11 | | | | | | | |
| Color/tint | Clew | _ | | 7 | | | | | | | |
| Odor | Non5 | | | 1 | | | | | | | |
| Sample Data | | | | | | | | | | | |
| Sample ID | Date | | Time | # Cor | ntainers | # Filtered | | | Remarks | | |
| MW-1617 | 4/241 | 14 0 | 1948 | L | | 0 | ILAN | der. IL du | nyc. 175 ml | plantic, your blen | |
| 107 | 17.01 | | | 4 | | | 1 | 1 - [10] | 100 | 1 | |
| | | | | | | | | | | | |
| | | | | ((*)) | | | | | | | |
| Sampler's Name (prin | t): A1 | EV | HAMI | · . I | | Samr | oler Sign | nature: | On Hank | | |

| Facility: OMP oject Number: 03012 Site Description Type: Monitoring Well [Weather: Way Well Locked? Yes Remarks: Min why Water Level Data Measuring point description Mark/notch on TOC North rim of TOC | Tempor | Total Dept | Extra Air th (ft) | Date: (ction Well [Temp (°F): | | duction Wel | | | ell 🔲 Borehol | |
|--|-----------------|----------------|-------------------|-------------------------------|---------|---|-----------|---------------|----------------|-----------------------------------|
| Site Description Type: Monitoring Well [Weather: Yes] Well Locked? Yes Remarks: Min white Water Level Data Measuring point description Mark/notch on TOC | Tempor | Total Dept | Extra Air th (ft) | ction Well [Temp (°F): |] Proc | duction Wel | l □De | | | e Other |
| Type: Monitoring Well Weather: May Well Locked? Yes Remarks: Main white Water Level Data Measuring point description Mark/notch on TOC | No [filling | Total Dept | Air 'th (ft)_ | Temp (°F): | 52 | | l De | | | |
| Type: Monitoring Well Weather: May Well Locked? Yes Remarks: Main white Water Level Data Measuring point description Mark/notch on TOC | No [filling | Total Dept | Air 'th (ft)_ | Temp (°F): | 52 | | l De | | | |
| Weather: Yes Well Locked? Yes Remarks: Main white Water Level Data Measuring point description Mark/notch on TOC | No [filling | Total Dept | Air 'th (ft)_ | Temp (°F): | 52 | | . Пвс | | | |
| Well Locked? Yes Remarks: Main white Water Level Data Measuring point description Mark/notch on TOC | hillin | y bottles | th (ft)_ | | | 4 | | I V | Vind: (all | 1 |
| Water Level Data Measuring point descriptio Mark/notch on TOC | hillin | y bottles | | 05/10 | | nage/renair | e neede | | U- (| |
| Water Level Data Measuring point descriptio Mark/notch on TOC | | , | | | 1 2 4 | nage/repair | s neede | u Unicu | h vegta | tron tree grow |
| Measuring point description Mark/notch on TOC | | 50 | | | | | | MACH | nd (see b | next to fire out |
| Measuring point description Mark/notch on TOC | | | 21 . | no) | Ι. | | | 11100 | - WA L BACK TO | root j |
| Mark/notch on TOC | | | | 0 0 | 1 | | | | | |
| | | Water le | vel M | eter Make/ | Mode | el No. | | Serial No | . (Optional): | |
| I IIIOI III IIII OI I IOC | | Pre-pu | | Pre-purg | ne T | During | | Purge | After | |
| Other: | | initia | | confirmat | | purging | | end | sampling | Remarks |
| Time ("24:00" hr) | | 1036 | | 1344 | | 1412 | | 437 | 1521 | |
| Depth to Water (ft) | | 3.20 | | 3,40 | - | 3.72 | | 3.72 | 3.84 | |
| Date (mm/dd/yy) | | 4/23/ | | ज्मीडा। | 8 - | | | | 0.0 |) |
| LNAPL Thickness (ft) (If pr | | NUNE | | 10/10 | | | * | | | * |
| DNAPL Thickness (ft) (If pa | | <u> </u> | | | | | | | | |
| Note: Record "S" in Remarks Col | mn if she | en is observed | l _e s | | | | | | | |
| Field Data | | | | | | | | | | |
| Instrument Make/Model No | : Un | it or Serial | No: | | P | ump descri | ption: | | Bailer | description: |
| 451 pro Plus | | 37.1 | | | 12 | ✓ Peristalt | | | | isposable polyethylene |
| MICHTPW | | * 10 | | | | _ Bladder_ Submers | | ted / porta | | isposable Teflon isposable PVC |
| Purge depth (ft): | 125 | | | Wells | roes d | lry during p | | ☐ Yes | | isposable F v C |
| Casing vol. (gal): | v 15 | | | | | | | | | 2 |
| (where applicable) | | | | = [total | l depth | n (feet) – dep | oth to wa | ter (feet)] • | [well ID (inch | es) ²] • 0.0408 |
| Time ("24:00" hr) | 9 14 | 24 140° | 1141 | 2 1417 | 142 | 111425 | 1929 | 14331 | 437 | Remarks |
| Purge vol. (gal) | | | | 7 11 | | | | | N.10 | |
| Purge rate (mL/min) | 5 | > | 50 | - | | | ******* | | > | |
| | 75, | 14 5,105 | 50 | 45,08 | Q-7 | 0 5.70 | 5.69 | 5.00 | 5.69 | with vie grips |
| Temp. (°C) 14 | 4 | 3 142 | 14. | 3 14.4 | iu | | 14.5 | 14.7 | 14.81 | July July |
| Spec. cond. (µS/cm) | | 1 119.8 | 118 | 41181 | 117 | 51174 | 117.2 | 117.0 | 17.0 | |
| | 60. | 87 084 | 07 | 70.85 | 0.7 | 15 0.71 | 0 08 | 0.64 | 0.04 | |
| | .0 lu | 23 109 2 | 11.0 | 2 1 100 4 | 1105 | 51037 | 1036 | Noi O I | 6011 | |
| Turbidity (NTU) 13. | | 11/2.94 | 11.2 | 7 1336 | 10.1 | 1 15.74 | 1470 | 12.824 | 2.63 | |
| | ar | 11 (2(1) | 1112 | 1 17174 | TU.I | 1 10/11 | 11.6 | 16.00 | 12.00 | |
| Odor V | | | - | === | | | | | | |
| Odor | NY - | | <u></u> | | | _ | | | /1 | |
| Sample Data | | | | | | | | | | į. |
| Sample ID I | ate | Time | # C | ontainers | # | Filtered | | | Remar | ks |
| MW-175 041 | 5/18 | 1439 | | 4 | | 0 | IVI | amb | or' I x II | plastic : 1x125ml |
| 11.1 | 4 | | | - | | 7 | Dlast | | HOML O | |
| 08-7 041 | 1535 | | ü | | Ø | | | | 4: NWA#1, NWA# | |
|) - 1 | 10 | 1000 | - | | | ~ | try | -1140 | AS TOWN | J. 10001. |
| Sampler's Name (print): | inah | Ma C | nadi | Walter | | Samn | ler Sion | ature: 🖺 | alella XI | notyali |

| Facility: DMP | | | | | | Site ID: | MV | N-1 | XS I | Sampl | er: EW | | | |
|---------------------------------------|----------------|----------|------------|----------|-------|----------|--------|-------|----------------|-----------|----------------|----------|-------------|---------------------|
| oject Number: 05 | 013-00 | 20-0 | 32 | | | Date: 0 | | | | | 0.10 | | | FTN Associates, L |
| | 000 | | | | | | + | | LV L | | | | | |
| Site Description | | | | | | | | _ | | | | | | 1 EU |
| Type: Monitoring | | | y Well | _ | | | | | ion Wel | l De | | | | Other |
| Weather: Scatter | | | | | | np (°F): | | | | | | | Calm | |
| Well Locked? Y | es No | T | otal Dej | oth (ft) | u | 25 | Dar | mage | e/repair | s neede | d: None | / | | |
| Remarks: | ot record | e d | | | | | | | | | | | | |
| MIL DE | et record | eur - | | 0.h | _ | 100/01 | | | | | | | _ | |
| Water Level Data | | | te | 210 | U | (m) | L | | | | W | | | |
| Measuring point des | | | | | leter | Make/I | Mode | el No | 0. | | Serial No | . (Opti | onal): | |
| Mark/notch on T | | - | NW | | П | | . 1 | | During | | Dungs | Ι | fter | |
| Other: | C | | Pre-p | | | re-purg | | | During ourging | | Purge end | CHAN | ipling | Remarks |
| Time ("24:00" hr) | | | 641 | | - | 155 | | 0 | | | 834 | - | 23 | |
| Depth to Water (ft) | | | 3.4 | | | .34 | | | 170 | | 3.71 | _ | .81 | |
| Date (mm/dd/yy) | | - | 4/07 | | | 1201 | 18 | | 110 | | |) | 141 | |
| LNAPL Thickness (| ft) (If presen | t) | mo | e | 5-1 | 1001 | , N | | | | | | 7 | |
| DNAPL Thickness (| | | NON | | | | | | | | | | | |
| Note: Record "S" in Rem | arks Column | if sheen | is observe | ed. | | | | | | | | | | |
| Field Data | | | | | | | | | | | | | | |
| Instrument Make/Mo | odel No: | Unit | or Seria | l No: | | | P | umr | descri | ption: | | T | Bailer de | escription: |
| 7SI ProPL | LU | Ħ | 4 | | | | Į | ΖÊ | eristalt | ic | | | ☐ Disp | osable polyethylene |
| MicroTPL | Ň | | b | | | | [| | | | ited / portal | ble) | | oosable Teflon |
| 2 1 1 (0) | 10.1 | | | | _ | 177 11 | | | ubmer | | (F) X7 | | | posable PVC |
| Purge depth (ft): | ~2 | | | - | - | Well g | oes o | iry d | luring p | ourging: | Yes Yes | N V | ło | |
| Casing vol. (gal): (where applicable) | | la comp | | | | = [total | depth | h (fe | et) – dep | oth to wa | iter (feet)] • | [well II | O (inches) | 0.0408 |
| Time ("24:00" hr) | 0802 | 080 | 180 | 108 | 17 | 0822 | 087 | 27 | 0830 | 0833 | 0830 | | R | Remarks |
| Purge vol. (gal) | | | | | | | | | | | N5 | | | |
| Purge rate (mL/min) | 115 | 35 | | | > | 55 | | - | | | -> | 1. | uith | vice antior |
| oH (su) | 6.0 | 100E | (0.0 | 1 6.0 | 9 | 6,10 | (0.) | 01 | 0.11 | 6.11 | Ceill | | | 111 |
| Гетр. (°C) | 14.0 | _ | | | | 4,5 | - | _ | 14.6 | | 14.7 | | | |
| Spec. cond. (µS/cm) | 3169 | - | - | 031 | - 1-1 | 317.2 | | | | | 316.4 | | | |
| O.O. (mg/L) | 1.70 | 0.10 | 10.70 | 10. | | | | | 0.58 | | 0.50 | | | |
| ORP (mV) | 140.8 | 170- | 1118 | 2116 | - | 1144 | 112 | 5 | 113.0 | 11/1/10 | 112.6 | | | T. |
| Turbidity (NTU) | 647 | 3.83 | | 6 1.1 | -0 1 | .52 | 15 | | 2.11 | 1,20 | | | | |
| Color/tint | Clear | | 2.4 | Pin | 1 | 100 | CIO | | LILI | 1120 | NL | | | |
| Odor | | | | | _ | | | | | | 3 | | | * |
| AUI . | Nove | | | | | | | | | | / | | | |
| Sample Data | | | | | | | | | | | | | | |
| | | | | | | ainers | # | Fil | tered | | | I | Remarks | |
| MW-185 | 04/26 | 18 6 | 0838 | | 4 | | | Q | Y | 11/1 | amper, | 1411 | Lolast | icily 125 ml |
| 100 | 1 | 1,4 | 20 /0 | | - | | | - | | | C: 1x 4 | | | |
| | | | | | | | \top | | | Pivol | 1127 | O PUCC | - Miso | |
|) | | | | | - e' | + | | _ | | | | | | |
| ampler's Name (pri | nt): Elia | Marke | 1 1/2 | dola | 010 | 0 1/2 | - | | Sampl | er Sion | ature: | July) | A.a.I | als |
| | | NIXIV | 1 1 11 1 | ALLAN/ | 1447 | x A | | - 1 | ~ | ~~~~ | 170 | WVVVV | TO ANALYSIS | IMV |

| Facility: OMP | | | | * | Site ID | M | N-18D | Sampl | er: EW | 1 | | - | |
|---------------------------------------|----------------|----------|------------|------------|-----------|---------|-------------|-----------|--------------|------------------|---------------|-------------|---------------|
| oject Number: 07 | 0013-00 | 20- | 032 | | Date: () | 14 | 0118 | Бинр | CV 4 | O . | | FTN Ass | sociates, Ltd |
| | 01. | | | | | 11- | 110 | | | | | | |
| Site Description | Wall Clar | | | TF-stee of | : Wall [| □ D | 4 337-1 | U CD. | | W-11 🖂 D | b-al- F | 7.04h | |
| Type: Monitoring | | | | | emp (°F): | | 54 | п Пре | watering | | | | |
| Weather: Cotto | | 2000 | | oth (ft) | | | nage/repair | re naada | d: A las | Wind: (| am | | |
| Remarks: | es 🔲 No | | otal Dep | /III (II) | 7 0) 0 | Dan | nage/Tepan | is neede | a. Nor | | | | |
| remans. | | | | | | | | | | | | | |
| W. A. I I D. A. | | | | Lo2t | 0.5 | mg | 1 | | | | | | |
| Water Level Data Measuring point des | cription: | | Water 1 | 10 | er Make/ | - 6 | 1 No. | | Serial N | No. (Opti | onal): | | |
| Mark/notch on T | OC | | NWA | | | | | | 2011411 | (ори | | | |
| North rim of TO | C | - | Pre-pi | | Pre-purg | | During | | Purge | | fter | Re | marks |
| Other: | | - | initi | | confirmat | | purging | | end | | pling | | |
| Time ("24:00" hr) | | | 1049 | | 0840 | | 09103 | | 0123 | 09 | | | |
| Depth to Water (ft) | | | 5,21 | | 5.19 | | 5.3 | > ' | 5.39 | 5. | 47 | | |
| Date (mm/dd/yy) LNAPL Thickness (f | ft) (If nrasau | () | 4/23/ | | याग्वा | 1 | | | | | 7 | | |
| DNAPL Thickness (| | | - June | | | | | | | | | | |
| Note: Record "S" in Rem | | | is observe | d. | | | | | | | | | |
| Etala D. 4. | | | | | | | | | | | | | |
| Field Data Instrument Make/Mo | rdel No: | Unit | or Seria | No: | | D, | ump descri | intion | | | Railer de | scription: | |
| 4SI Pro F | 100 | Oint | #4 | 140. | | Ī | Peristal | | | 1. | | | yethylene |
| MicroTI | W | | #16 | | | 1 | Bladder | (dedica | ated / por | table) | ☐ Disp | osable Te | flon |
| | - | | | | | | Submer | - | | | | osable PV | C |
| Purge depth (ft): | ~30 |) | | | Well g | goes d | ry during p | purging | : □ Y€ | es 🖊 N | 0 | | |
| Casing vol. (gal): (where applicable) | | | | | = [tota | l depth | (feet) - de | pth to wa | iter (feet)] | • [well ID | (inches) | 2] • 0.0408 | |
| Γime ("24:00" hr) | 0849 | 084 | 0850 | 10902 | 0905 | 1090 | 11190 % | 0911 | 10917 | 09701 | 0923R | emarks | |
| Purge vol. (gal) | | - | | 10.00 | 0 10.0 | - | 0 | 0 11 | 1 | 200 | 2.9 | | |
| Purge rate (mL/min) | 120 | 95 | , ~ | - | + | _ | | | | | \rightarrow | Kiri | nuce S |
| oH (su) | | | | 1 6.80 | 10.80 | 10.8 | 06.79 | 670 | 679 | 1078 | 1078 | 0 - () | T VICE S |
| Гетр. (°C) | 14.6 | 14. | 714.5 | 14.5 | 14.10 | 14.1 | 0 14.6 | lu. 7 | 14.10 | 14.4 | 14.7 | | |
| Spec. cond. (µS/cm) | 300.1 | | | | 301.7 | 14 | | 10 | 301.8 | 2017 | 301.6 | | |
| D.O. (mg/L) | 1.24 | 0.81 | | 0.74 | Δ- | 0.75 | 2 0 0 | 0.102 | - 0 | 0.98 | | | |
| ORP (mV) | 110.10 | | - | - | | | | 30 0 | 10.7 | 8.8 | 4.9 | 1 | |
| Turbidity (NTU) | 16.45 | | 61110 | | | 9.3 | 4 8.92 | 971 | 8.15 | 8115 | 7.98 | 1 | |
| Color/tint | Clear | | Plato | 10.1 | 11.10 | 1,5 | 19.15 | 1.0 | 0112 | 3113 | 11 10 | | |
| Odor | | _ | | | | | | | | | 1 | 1 | + |
| | Nove | | | | | | | | | | 1 | - | |
| Sample Data | | | | | | | | | | | | | |
| Sample ID | # Co | ntainers | # | Filtered | | | R | emarks | | | | | |
| MW-18D | 04/24 | 118 1 | 0925 | L | 1 | | Ø | 1211 | - oruni- | 11 1/3 | plathe | 1 1×12 | SmL |
| 101/ | 100 | | | | | | 7 | | IC, IX | | | | J 11000 |
| | | | | | | | | KIN | MI IX | IV IV | 910 | .,, | |
|) | | | | - | | | | | | | | | |
| Sampler's Name (prin | nt): [1] | who. | th It | ude ly | Wer | | Samp | ler Sign | ature: | Maleta | ALIA | Waln | |
| | / L/VI | WW. | / | WINIAM | VUVI / I | | - P | - 0 | 11.00 | / X W/ U U U I V | / 31 11/01/1 | WALL DATE | |

| Partition Olive Mi | C-2 / A | | | | Site ID: | 10.0 | Cample | A cı | 1 | |
|--|------------|--------------------------|---------------|--------------|-----------------------|------------------|---------------|---|--------------------|----------------------|
| Facility: OLD MI | | | 0 | | Site ID: | | Sample | er: ASA | 4 | FTN Associates, L |
| oject Number: 0 | 5015-00 | 20-0 | 32 | | Date: 4/ | 29/12 | | | | FIN Associates, L |
| Site Description | | | | | | | | | | |
| Type: Monitoring V | Vell Te | empora | y Well | Extracti | on Well 🔲 | Production We | ll Dev | watering V | Vell Dorehole | Other |
| Weather: CLEAR | | | | Air Te | mp (°F): | 59 | 1 | | Wind: 5mgh | |
| Well Locked? Ye | s 🗌 No | T | otal Dept | h (ft) 2 | 6.87 | Damage/repai | rs needed | d: Mar | TRIM VEG | ETATION |
| Remarks: | | | | | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| Fezt; | 0.0 | My | 1 | | | | | | | |
| Water Level Data | | / | | | | | | | | |
| Measuring point desc | ription: | | Water le | | er Make/M | odel No. | | Serial N | lo. (Optional): | |
| Mark/notch on TO | | | | | | #4 | لبرحا | | | |
| North rim of TOC | | | Pre-pu | | Pre-purge onfirmation | During | | Purge | After | Remarks |
| | | | initia | | Ontirmation | n purging | | end | sampling | |
| Time ("24:00" hr) | | | 1134 | | | - 2- | _ | 909 | 1015 | |
| Depth to Water (ft) Date (mm/dd/yy) | | 6.46 6.60 6.93 7.17 7.05 | | | | | | | | |
| LNAPL Thickness (fi | (If proson | 1) | NONE | 1 | | | | | | |
| DNAPL Thickness (f | | | NONE | | | | | | | |
| Note: Record "S" in Rema | | | is observed | -5) | | | | | | , |
| E!-14 D-4- | | | | | | | | | | |
| Field Data Instrument Make/Mod | del No: | Unit | or Serial | No: | | Pump descr | intion: | | Railer d | lescription: |
| YOI PEU P | | Omt | 5 | 140. | | Peristal | | | | posable polyethylene |
| MILLERY | W | | 5 | Ŧ | | ☐ Bladde | r (dedica | ted / port | able) 🔲 Dis | posable Teflon |
| | | | | | | ☐ Submer | | | | posable PVC |
| Purge depth (ft): | | ~22 | | | Well go | es dry during | purging: | [□ Ye | s 🔄 No | |
| Casing vol. (gal): (where applicable) | | | | | = [total d | epth (feet) - de | pth to wat | ter (feet)] | • [well ID (inches | $(s)^2$] • 0.0408 |
| Time ("24:00" hr) | 0828 | 063 | 6 0848 | 0858 | 0908 | | | | | Remarks |
| Purge vol. (gal) | | | | | ~.2 | | | | | |
| Purge rate (mL/min) | 35 | 25 | - | MR | 30 | | | | | |
| pH (su) | 5-64 | 5,60 | | - | 5.73 | | | | | |
| Temp. (°C) | 15.5 | 16- | | 16.3 | 17,5 | | | | 7 | |
| Spec. cond. (µS/cm) | 652 | 657 | - | 650 | 650 | | | | | |
| D.O. (mg/L) | 100 | 0.9 | | + | 0.63 | | | | | |
| ORP (mV) | -1426 | -132 | | | | 0 | | | | |
| Turbidity (NTU) | 6.13 | 5,43 | | | 5.95 | | | | | |
| Color/tint | | 3,4 | 1 6.5 | 0,0 € | 5.75 | | - | | | |
| Odor | CHEAR | | | | - 3 | | | | | |
| Oddi | NIME | | | | | | <u></u> | , | | |
| Sample Data | | | | | | | | | | |
| Sample ID | # Cor | ntainers | # Filtered | | | Remarks | 3 | | | |
| Mw-195 | 0910 | L | | 0 | 1 L Amb | w. IL Pu | when 176 ml P | lety 10 mt 647 | | |
| | 4/25. | | .,, | | | _ | | 1 10 10 | 1. 1 | 1 |
|) | | | | | | | | | | |
| | | | | - | | | | | / | |
| Sampler's Name (prin | nt): A1 | 120 | HAM | .TA/ | | Samp | ler Signa | ture: | Waster- | 11 |
| | / 11 | / L A | 1 1 1 7 2 1 1 | or don't lot | | 1 | _ | - // | IN W FUIL | |

| | | | | | | | | - | | | | |
|--|------------|----------|--|------------|-----------|--------|----------------------------------|-----------|--------------|--|--------|---|
| Facility: OLI) M | | Site ID | : Mw. | -190 | Sampl | er: AS | 14 | | | | | |
| oject Number: 0 | 3013-00 | 20-03 | 32 | | Date: | 4/75 | 114 | | | | | FTN Associates, Lt |
| Site Description | | | | | | | | | | | | н |
| Type: Monitoring V | Well Te | mporar | y Well | Extraction | on Well [| Produ | iction Wel | ll 🔲 De | watering V | Vell 🔲 Borel | iole 🗌 | Other |
| Weather: CL | TUNY | | | Air Te | mp (°F): | | して | | | Wind: 10 | uph | |
| Well Locked? ☑ Ye | s 🗌 No | To | otal Dept | h (ft) 40 | 1.04 | Dama | age/repair | rs neede | d: Tra | M VEGE | turzen | ν |
| Remarks: Ferri 1.5 m | 9/2 | | | | | | | | | | | |
| Water Level Data | | | XX-4- 1 | -136. | 37.1 | N 11 | > T | | G 133 | (0.1: | 1): | |
| Measuring point desc | | | Water le | vel Mete | Make/ | Model | No. | | Serial N | lo. (Optiona | 1): | |
| North rim of TOC | | | Pre-pur initia | rge | Pre-purg | ge | During purging | | Purge end | After sampling | | Remarks |
| Time ("24:00" hr) | | | 122 | | 0917 | | 0979 | | 945 | 1027 | | |
| Depth to Water (ft) | | | | | | | | | | | | |
| Date (mm/dd/yy) | | | 4/23 | | 1/25/4 | | 7,00 | 3 | -71 | | 0 | |
| LNAPL Thickness (fi | Now | | | | | | | | | | | |
| DNAPL Thickness (f | | - | NONE | | | | | | | | | |
| Note: Record "S" in Rema | rks Column | if sheen | is observed | • | | | | | | | | |
| Field Data | | | | | | | | | - | | | |
| Purge depth (ft): | <i></i> | 35 | 5 | | Well | | Peristal Bladder Submer during p | dedica | ited / port | able) | Dispo | sable polyethylene sable Teflon sable PVC |
| Casing vol. (gal): (where applicable) | | _ | _ | | | _ | - | pth to wa | iter (feet)] | • [well ID (in | ches)2 | 0.0408 |
| Time ("24:00" hr) | 0921 | 0926 | 0931 | 0936 | 0939 | 0942 | | | | | Re | marks |
| Purge vol. (gal) | | | | | | | 12.6 | | | | | |
| Purge rate (mL/min) | 90 | | | | | | \rightarrow | | | | | |
| pH (su) | 6,37 | 6.35 | 6.35 | 6.34 | 6.35 | 6.34 | 6.33 | | | | | |
| Temp. (°C) | 160 | 16.0 | 15.4 | 15.8 | 15,7 | 15.6 | 15.6 | | | | | |
| Spec. cond. (µS/cm) | 5709 | 570,7 | 1571,9 | 572.2 | 571,5 | 570,8 | 57.5 | | | | | |
| D.O. (mg/L) | 1,32 | 0.57 | 0.45 | 0.41 | 0.37 | 6.31 | 0.31 | | | | | |
| ORP (mV) | -141,5 | -147,5 | 144,2 | -151,4 | -157,5 | 153.7 | -154,4 | | | | | |
| Turbidity (NTU) | 1492 | | 1 14.35 | | 14.93 | 1651 | 13.22 | | | | | |
| Color/tint | Clean | - | | | | | +-> | | | | | |
| Odor | NONE. | | | | | | 1 | | | | | |
| Sample Data | | | | | | | | | | | 15. | |
| Sample ID | # Con | tainers | #1 | Filtered | | | Rem | arks | | | | |
| MU-19D | 4/25 | 118 0 | 1947 | , , | -1 | | O | IXILAN | ler STUCES | 1x IL Playto | Anu | . 12750-2 Metals, |
| v 17 | | | | | | | | | a tuc | | | , |
|) | | | | | | | | | | | | i i |
| | | | | | | | | | | | _ | |
| Sampler's Name (prin | it): All | EX | 1-19ML | tn | | | Samp | ler Sign | ature: / | C. Plus | _ | |
| | | | Division in the last of the la | | | | | | | Contract of the Contract of th | - | |

| - | | | | | | - 0 | | D I V | | |
|--|----------------|----------|-------------|----------|---------------------------|-------------------|---------------|-------------------|-------------------|---------------------------|
| bject Number: O | MIDL | ANI |) | | Site ID: | MW-20. | Sa: | mpler: A | 514 | |
| oject Number: O | 3013-0 | ero | -037 | | Date: 4 | 124/13 | | | | FTN Associates, Ltd |
| Participant of the Control of the Co | | | | | | | | | | |
| Site Description | | | | | | | | | | |
| Type: Monitoring | | mporar | y Well | 1 | | | Well _ | | | |
| Weather: Su. | | | | | emp (°F): | 79 | | | | mp 6 |
| Well Locked? ☑Ye | s 🗆 No | T | otal Dept | h (ft) 3 | 1,27 | Damage/re | pairs ne | eeded: | none | |
| Remarks: | 2.0 m | 7/1 | | | | | | | | |
| Water Level Data | , | | | | | | | | | |
| Measuring point desc | ription: | | Water le | vel Met | er Make/N | Model No. | | Serial No | . (Optional): | |
| Mark/notch on To | | - | | UWA | | | | | T | |
| North rim of TOC ☐ Other: | 3 | | Pre-pui | | Pre-purge confirmation | | 400 | Purge end | After | Remarks |
| Time ("24:00" hr) | | - | | _ | | | | | sampling | |
| Depth to Water (ft) | | - | 1210 | | 478 | 150 | | 1510 | 1641 | |
| Date (mm/dd/yy) | | - | 6.74 | | 6.84 | 7-11 | | 7.11 | 7-07 | |
| LNAPL Thickness (f | t) (If present | t) | Nove | | 4/0-1/1 | 9- | | | <i>D</i> | |
| DNAPL Thickness (f | t) (If presen | t) | 1 | | | | | | | |
| Note: Record "S" in Rema | rks Column | if sheen | is observed | | | | | | | |
| Field Data | * | | | | | | | | | |
| Instrument Make/Mo | del No: | Unit | or Serial | No: | | Pump de | scriptio | on: | Bailer de | escription: |
| YGI PRO | PLUS | | 5 | | | Peris | | | ☐ Disp | osable polyethylene |
| 1 Meno | TPW | | 5 | | - | | | edicated / portal | | oosable Teflon |
| D 1 1 (0) | | | | | T | | nersible | | | osable PVC |
| Purge depth (ft): | .~ 2 | .0 | | | _ | oes dry duri | | | ⊠ No | |
| Casing vol. (gal): (where applicable) | | , | | | | depth (feet) - | depth to | o water (feet)] • | [well ID (inches) | o ²] • 0.0408 |
| Time ("24:00" hr) | 1441 | 145 | 1 501 | 1509 | 1509 | | | | R | Remarks |
| Purge vol. (gal) | | | 1-2 | | ~.3 | | | | | |
| Purge rate (mL/min) | 40 | | | | 7 | | | | | |
| pH (su) | 633 | 6,25 | 6 6.38 | 640 | 6.40 | | | | | |
| Temp. (°C) | 20,9 | 24,6 | | | 25-1 | | | | | |
| Spec. cond. (µS/cm) | 781 | 769 | | 767 | 764 | | | | | |
| D.O. (mg/L) | | | 0.65 | | 0.58 | | | | | |
| ORP (mV) | | | 7-1630 | | 7 -1620 | | | | | |
| Turbidity (NTU) | 1904 | | | | 1079 | | | | | |
| Color/tint | Clary | | 11000 | | () | | | | | |
| Odor | 1'es | | | - | - | | | | | |
| | Sucet, | 13451 | mi-like | | | 9 | | | | |
| Sample Data | , | 7 | ,, c | | | | | | | |
| Sample ID | Date | | Time | # Co | ntainers | # Filtere | d | | Remarks | |
| MW-705 | | 4 | 1 | IL | Amler, IL Plu | also 125 nd Phats | or, Home Ghrs | | | |
| | 4/24/ | | 512 | | -1 | | | 1 | The Land | 1 |
| 1 | | | | | | | | | | |
| | | | | | | | | | | |
| Sampler's Name (prin | nt): A11 | ~~ | LANGE | Tax | | Sa | mpler S | Signature: | 110, 00 | 1- |

| Facility: GLD | MD a | | T | Site ID. | M. 20 | Sampl | or: A | | |
|--|---------------------|---------------|------------|-------------|--------------------|-----------------|----------------|--------------------|-----------------------------------|
| | MEDLAND | 1 10- | | | MU-201) | Samp | ler: Ash | / | FTN Associates, Ltd |
| bject Number: O | 3013-002 | 0-037 | | Date: 4 | 124/18 | | | | FIN Associates, Ltd |
| Site Description | | | | | | | | | |
| Type: Monitoring | Well Tempor | ary Well [| Extraction | on Well | Production We | il \square De | watering W | ell Borehole | Other |
| Weather: Clear | | | | mp (°F): | 79 | | | Vind: 10m | |
| Well Locked? | es 🗆 No | Total Dep | | | Damage/repai | irs neede | | | -1 |
| Domarke | | <u>-</u> | | <u> </u> | 8 | | | | 9 |
| F2731.5 | 79/2 | | | | | | | | |
| | 7 | | (4) | | | | | | |
| Water Level Data | | Water 1 | aval Mata | - Males/Nf | dal Na | | Coriol No | (Ontional) | |
| Measuring point desc Mark/notch on To | | water | ever Mete | r Make/M | odel No. | | Serial No | o. (Optional): | |
| North rim of TOC | | Pre-pı | | Pre-purge | During | g | Purge | After | D1 - |
| Other: | | initi | | onfirmation | n purgin | g | end | sampling | Remarks |
| Time ("24:00" hr) | | 112 | | 1517 | 1988 | 1 | 543 | 1620 | |
| Depth to Water (ft) | | 6.66 | , | 4/2011 | 6.91 | (| 197 | 6.96 | |
| Date (mm/dd/yy) | | 6/2 | 1/19 | 4/22/1 | 8 | | | -> | |
| LNAPL Thickness (f | | New | | | | | | | |
| DNAPL Thickness (f Note: Record "S" in Rema | | | | | | | | | |
| tion. Record o mitchia | aks Column II show | 11 15 0030110 | | | | | | | |
| Field Data | | | | | | | | | |
| Instrument Make/Mo | | it or Serial | No: | | Pump descr | | | | scription: |
| MICRUTE | 1~ | 5 | | | Peristal Bladde | | ated / porta | | osable polyethylene osable Teflon |
| 2 7 12 (100 11 | | | | | Subme | | atou / porta | | osable PVC |
| Purge depth (ft): | 723 | 4 | | Well goe | s dry during | purging | : [☐ Yes | No No | |
| Casing vol. (gal): (where applicable) | | | | = [total de | epth (feet) – de | pth to wa | ater (feet)] • | [well ID (inches) | ²] • 0.0408 |
| Time ("24:00" hr) | 1522 15 | 271537 | 2 1537 | 1542 | | | | R | temarks |
| Purge vol. (gal) | | | | 2.4 | | | | | |
| Purge rate (mL/min) | 90 70 | 3 — | | - | | | | | |
| pH (su) | 6,43 6,9 | | 6,18 | 6.21 | | | | | |
| Temp. (°C) | 21,621 | | | 2-1-0 | | | | | |
| Spec. cond. (µS/cm) | 642 64 | | | 634 | | | | | |
| D.O. (mg/L) | 2.63 18 | | | 1,47 | | | | | |
| ORP (mV) | 148,2 44 | | 5-143,1 | | | | | | |
| Turbidity (NTU) | | 14 20,4 | | | | | | | |
| Color/tint | 1 Cle | | | -3 | | | | | |
| Odor | V SUM | | NONE | | | | | V | |
| | 11. | | | | | | 4 | | |
| Sample Data | 5lig 4+ | suecteds | | | | | | | |
| Sample ID | Date | # Con | tainers | # Filtered | | | Remarks | | |
| MW-2017 | 2017 4/24/19 1545 6 | | | | 0 | IL Ar | 160, IL Plans | 41, 123 AL Plankie | , 40ml 6/19) |
| EB-6 | 1 | 1700 | L | | 0 | End a | | | A3 2 NWA #4 2 |
|) | | | | | | | | | silicons turing |
| | | | 91 | | | 1 1 | J* | 1 | 2 |
| Sampler's Name (prin | it): Alex | HAM | 17.42 | | Samı | oler Sign | nature: / | 71 100 | 51.6 |

| Facility: OMP | | | | | Site ID: | MW- | 215 | Sample | r: EW | J | | | | |
|---|---|----------|----------|----------|-----------|----------|------------------------|------------|------------|------------|-----------|-------------------------|-----------------|--------|
| pject Number: 030 | 3-007 | 20-6 | 132 | | Date: O | 1.4 | | | | | | FTN A | Associate | s, Ltd |
| Site Description | | | | | | , , | | | | | | | | |
| Type: Monitoring Well | Temp | orary \ | Well | Extracti | on Well |] Produc | tion Wel | 1 Dev | vatering \ | Well 🔲 E | Borehole | Other | | |
| Weather: Overcast | | · | | Air Te | mp (°F): | 107 | | | | Wind: | P WU | MON | | |
| Well Locked? |] No | Tota | al Depth | (ft) 2 | 7.09 | Damag | де/гераіг | s needed | New | is ba | int | | | |
| Remarks: Ponded wo | и | ijace | ht to | s we | U pad | , large | , pond | ed au | ea of | wat | er ap | proxin | nadely | 8, |
| Water Level Data | Fert | : 0 | ,5 " | 10 L | | | | | | | | | | |
| Measuring point descripti | on: | W | ater lev | rel Mete | er Make/I | Model N | lo. | | Serial N | lo. (Opti | ional): | | | |
| ☐ Mark/notch on TOC☐ North rim of TOC | | ļ | Pre-pur | | Pre-purg | e T | During | 7 | Purge | A | fter | | | |
| Other: | | | initial | | onfirmati | | purging | | end | | pling | | Remarks | |
| Time ("24:00" hr) | | | 204 | 1 | 449 | 1 | 523 | | WHE | 16 | 43 | | | |
| Depth to Water (ft) | | | 5.00 | | 5,03 | | 5,15 | | 5.16 | 5. | 20 | | | |
| Date (mm/dd/yy) | | 04/23/18 | | | | | | | -3 | | | | | |
| | APL Thickness (ft) (If present) APL Thickness (ft) (If present) VOV | | | | | | | | | | | | | |
| DNAPL Thickness (ft) (If Note: Record "S" in Remarks C | | | _ | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Field Data | .T. Y | T | 01-13 | τ | | D | 1 | | | | D - 31 | | | _ |
| Instrument Make/Model N | No: U | mit or | Serial I | NO: | | | ip descri Peristalt | | | | Bailer de | | n: polyethyl | ene |
| MONOTPA | | #1 | P | | | / | | (dedicat | ed / por | table) | | osable | | |
| <i></i> | | | | | | | Submer | | | | | osable l | PVC | |
| | 12 | | | | Well g | oes dry | during p | ourging: | (□ Y€ | s Z N | 1o | | | |
| Casing vol. (gal): (where applicable) | | | | | = [total | depth (f | eet) – dep | oth to wat | er (feet)] | • [well I] | D (inches |) ²] • 0.04 | 108 | |
| | 15011 | 504 | 1509 | 1513 | 1518 | 1523 | 1528 | 1531 | 1534 | 1537 | 1540 | 15dalfy | 1546 | |
| Purge vol. (gal) | | - 1 | | | , | | .,, | | 1- | - | | | ~.8 | |
| Purge rate (mL/min) | 70 8 | 35 | | | 75 | 80 | | | | | | | ->1 | |
| pH (su) 5 | 995. | Le T | 5.87 | 6,89 | 15.95 | 6.05 | 6.09 | 6.08 | 6.07 | 6.04 | 6.04 | 6.05 | 6.05 | |
| | 0.5 11 | | 16.4 | | 16.4 | | | | | | | | | |
| | | | v15 | | | | | 1068 | | | 608 | | | |
| D.O. (mg/L) 2 | .13 0. | 109 | 0.68 | 0.55 | 0.44 | 0.47 | 0.47 | 0.42 | 0.38 | 0.37 | 0.36 | | 0.33 | |
| ORP (mV) | 14.912 | 10.01 | 117.4 | 113.1 | 104.1 | 94.9 | 89.7 | | | 85.0 | 84.2 | 82.2 | 79.3 | |
| Turbidity (NTU) 5 | 3.21 48 | 818 | 13.51 | 340 | 141.29 | | | 36,51 | | | | | 20.72 | |
| Color/tint 4 | Dition . | | 7 | Clear | | | | | | | | | 7 | |
| | one. | | | | | | | | | | ļ | | -> | |
| 8 | suspe | note | d fin | 3 | ale col | | di- | | | | with | na g | nps | |
| Sample Data | | | | | | | | | | | | | | |
| Sample ID | Date 23 8 | _ | 35 | # Cor | ntainers | # F: | iltered | | | | Remarks | | | |
| EB-1 04 | | 1 | | Ø | IXI | L amba | V; IX | IL play | tic, 1x | 40mlg1 | as, ix | | | |
| MW-215 00 | | 4 | 48 | | 1 | 1 5 | 7 | - | u pla | | 10 | 107 | 1 1-5 | |
| DUP-MW-219 OU | 123 | 8 16 | 10 | | 1 | V |) . | | | | 10ml | glass. | 1x125 | mlph |
| 1111111111 | -15.1 | | 11: | dala | . 1. 0.10 | | La | | -plat | | | Tools | | |
| Sampler's Name (print): | Eliza | nexv | UTV | (JUN) | MULY | | Samp | ler Signa | ture: | tallet | OTH | Waln | / | |

| Facility: DMP | | Site ID: | MW- | 211) | Sample | er: EW | 7 | | | | |
|--|-----------------------------|---------------------------------|---|------------------------|--------------------------------|---|--|--|--|-----------------------|--|
| pject Number: 03013-002 | 0-0 | 32 | | Date: 0 | 4/23 | 18 | | | | | FTN Associates, Ltd |
| Site Description | | | • | | | | | | | | |
| Type: Monitoring Well Tem | porary \ | Well [| Extraction | on Well [| 1 Produc | tion Wel | 1 De | watering V | /ell □ B | orehole l | Other |
| Weather: Oversast | porury | TON [| | mp (°F): | | TION WO | Пъс | | | Calm | |
| Well Locked? Yes No | Tota | al Depth | (ft) 4 | 0.95 | Damas | re/repair | rs neede | d: Neec | 15 mm | int | |
| Remarks: Ponded mater | idja | cent | to | vell o | ad, l | WK C | irca | of po | nded | wat | er approximately |
| Remarks: Ponded water of from N o | F'N | sell. | | r | | 0 | | F | | | 1. |
| Water Level Data | | e21: | | | | | | | | | |
| Measuring point description: | | | | r Make/N | Model N | lo. | | Serial N | o. (Opti | onal): | |
| Mark/notch on TOC | | AWE | | | | | | | 1 . | | |
| ☐ North rim of TOC ☐ Other: | | Pre-pur initial | | Pre-purg | | During purging | | Purge end | | fter pling | Remarks |
| Time ("24:00" hr) | _ | 1208 | | 1552 | | wl5 | | 030 | | 18 | |
| Depth to Water (ft) | - | 4.54 | | 4.45 | | 1.85 | | 1.80 | | 12 | |
| Date (mm/dd/yy) | | 4113 | IX - | 1193 | _ | 1.4 | | 1,5 4 | - | -> | |
| LNAPL Thickness (ft) (If present) | | None |) | | | | | | | | X |
| DNAPL Thickness (ft) (If present) | | Non | 2 | | | | | | | | |
| Note: Record "S" in Remarks Column if | theen is | observed. | | | | | | | | | |
| Field Data | | | | | | | | | | | |
| | Juit or | Serial 1 | No: | | | p descri | | | | | escription: |
| MICHOTPIN | 中山 | 1 | | - | | Peristalt Bladder | | ted / porta | able) | | oosable polyethylene oosable Teflon |
| - t-wovert VV | - 4 | - | | | | Submers | | ica / port | | | osable PVC |
| Purge depth (ft): v 4 | | | | Well g | oes dry | during p | ourging: | □ Ye | KN | io . | |
| Casing vol. (gal): | | | | = [total | depth (fe | eet) – der | oth to wa | ter (feet)] | [well II |) (inches | o ²] • 0.0408 |
| (where applicable) Time ("24:00" hr) | NV. | llain | امعلدا | | | | | | | | |
| Time ("24:00" hr) Purge vol. (gal) | 200 | 1610 | כשו | 1618 | 1021 | 1624 | WLI | 1030 | COD | 1030 | Cemarks |
| | ω5 | | | | | | | | | ~.7 | ۵۵۸۸ مالترمه |
| | | In O.C. | 1. (1/1 | 1-02 | 1 01 | 1. (2) I | in QuO | in ar | 1000 | 100 | nith nice |
| | | | | 6.92 | | 10.91 | 200 | 6.90 | | | grips |
| Temp. (°C) 15.9 16.9 15.9 16 | _ | | | 16.5 | 16.6 | 16.6 | כישוו | $ C_iQ_i $ | | 110,101 | |
| | | | EIN C | 502 | Chai | | | | | | |
| D.O. (mg/L) $ i_{\epsilon}QQ $ | _ | | 510.5 | 503 | - | | 509.0 | 509.0 | 508,4 | 508,6 | |
| 13, 1112 | 102 | 0.61 | 510.5 | 0.58 | 0.56 | | | 509.0 | 508,4 0,47 | 508,6 0.46 | |
| ORP (mV) 11.3 -7 | 2.3 | 34.0 | 0.59 -35,4 | 0.58 | 0.56 -38.5 | 509.1 0.53 -31.9 | 509.0 0.52 -41.4 | 509.0 0.50 -41.5 | 508,4 0,47 .40,9 | 508,6 0.46 40.8 | |
| ORP (mV) 11.3 -7 Turbidity (NTU) 40.35 3 | 2.3 | 34.0 | 0.59 -35,4 | 0.58 | 0.56 -38.5 | 509.1 0.53 -31.9 | 509.0 0.52 -41.4 | 509.0 | 508,4 0,47 .40,9 | 508,6 0.46 40,8 | |
| ORP (mV) 11.3 -7 Turbidity (NTU) 40.35 2 Color/tint Clear | 2.3 | 34.0 | 0.59 -35,4 | 0.58 | 0.56 -38.5 | 509.1 0.53 -31.9 | 509.0 0.52 -41.4 | 509.0 0.50 -41.5 | 508,4 0,47 .40,9 | 508,6 0.46 40.8 | |
| ORP (mV) Turbidity (NTU) Color/tint Odor Now | 102 23 9.61 | 0.61 34.0 49.29 | 0,59 -35,4 48,98 | 0.58 | 0.56 -38.5 | 509.1 0.53 -31.9 | 509.0 0.52 -41.4 | 509.0 0.50 -41.5 | 508,4 0,47 .40,9 | 508,6 0.46 40.8 | |
| ORP (mV) Turbidity (NTU) Color/tint Odor Nou *= Sur | 102 23 9.61 | 0.61 34.0 49.29 | 0,59 -35,4 48,98 | 0.58 | 0.56 -38.5 | 509.1 0.53 -31.9 | 509.0 0.52 -41.4 | 509.0 0.50 -41.5 | 508,4 0,47 .40,9 | 508,6 0.46 40.8 | |
| ORP (mV) Turbidity (NTU) Color/tint Odor Nou X = Sur | 1.62 2.3 9.61 Deno | 0.61 34.0 49.29 | 0.59 -35.4 48.98 | 0.58 | 0.56 -38.5 46.5) | 509.1 0.53 -31.9 | 509.0 0.52 -41.4 | 509.0 0.50 -41.5 | 508,4 0,47 40,9 37,40 | 508,6 0.46 40.8 | |
| ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data Sample ID Date | 162 2.3 9.61 Deho | 0.61 34.0 49.29 ded fi | 0.59 -35.4 48.98 | 0.58 -3e.9 47.61 | 0.56 -38.5 46.5) | 509.1 0.53 -31.9 50.62 | 509.0 0.52 -41.4 -45.73 | 509.0 0.50 -41.5 49.90 | 508,4 0,47 .40,9 37,40 | 0.46 40.8 37.24 | C. 1 x 125ml niwh |
| ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data | 162 2.3 9.61 Deho | 0.61 34.0 49.29 | 0.59 -35.4 48.98 | 0.58 -3e.9 47.61 | 0.56 -38.5 46.5) | 509.1 0.53 -31.9 50.62 | 509.0 0.52 41.4 45.73 | 509.0 0.50 -41.5 49.90 | 508,4 0,47 .40,9 37,40 | 0.46 40.8 37.24 | C, 1 x 125mc plant |
| ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data Sample ID Date MW-21D ORP (mV) 11.3-7 10.35-3 1 | Pence Ti | 0.61 34.0 49.29 ded fi | 0.59 -35.4 48.98 | 0.58 -3e.9 47.61 | 0.56 -38.5 46.5) # Fi | 509.1 0.53 -31.9 50.62 | 509.0 0.52 -41.4 45.73 | 509.0 0.50 -41.5 49.90 anher | 508.4 0.47 40.9 37.40 F | 0.46 40.8 37.24 | - 5 |
| ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data Sample ID Date | Pence Ti | 0.61 34.0 49.29 ded fi | 0.551 -35,4 48,98 we) # Con | 0.58 -3e.9 47.61 | 0.56 -38.5 46.5) # Fi | 509.1 0.53 -39.9 50.62 Itered | 509.0 0.52 -41.4 45.73 1x 1L 1x41 | 509.0 0.50 -41.5 49.90 | 508,4 0,47 40,9 37,40 12,1 12,1 12,1 | 0.46 40.8 37.24 | C, 1 x 125mc pint |

| | MIDL | ANID | | | Site ID: ^ | 141-225 | Sampl | er: ASI | J | |
|---|--|--|--|--|---|-----------------|-----------|--------------|------------------|--------------------------------------|
| Facility: O(1) | | | 032 | | Date: | 1W-ZZS | | | , | FTN Associates, L |
| / | | | | | | | | | | |
| Site Description | | | | | | | | | | |
| Type: Monitoring | | mporary | Well [| | | | ll De | | | |
| Weather: Cle | | | | | mp (°F): | 79 | | Į V | Vind: Garpy | |
| Well Locked? ☑Ye | s No | To | tal Deptl | n (ft) Z | 7,14 D | amage/repai | rs neede | d: .+ | IM gass | |
| Remarks: | | | | | | | | | , | |
| | | | | | | | | | | |
| Water Level Data | | | | | | | | | | |
| Measuring point desc | | 1 | Water lev | vel Mete | r Make/Mo | del No. | | Serial No | o. (Optional): | |
| Mark/notch on TO | | H | | | | | | D | After | |
| Other: | | | Pre-pur initial | | Pre-purge onfirmation | During purging | | Purge end | sampling | Remarks |
| Time ("24:00" hr) | | | 1707 | | ひてて | 1239 | 1 | 249 | 1330 | |
| Depth to Water (ft) | | | 7.78 | | 1.56 | 8-05 | | 8.06 | 8,07 | |
| Date (mm/dd/yy) | | | 4/23/ | 18 4 | -24-19- | | | 706 | 0707 | • |
| LNAPL Thickness (f | | 9 | NW | = | | " | | | * | |
| DNAPL Thickness (f | 3 | | NAME | | | | | | | |
| Note: Record "S" in Rema | rks Column | if sheen is | observed. | | | | | | | |
| Field Data | | | | | | | | | | |
| nstrument Make/Mo | del No: | Unit o | r Serial l | No: | | Pump descr | | | | escription: |
| MECRO MECRO | 11.45 | - | 5 | | | Peristal | | | | posable polyethylene |
|) TIL CILO | 11/~ | ÷ | フ | | | ☐ Bladder | | ted / porta | | posable Teflon posable PVC |
| Purge depth (ft): | | 22 | | | Well goes | dry during | | [Yes | | posable i ve |
| | | 11 | | | Wen Book | , dr , daring , | P | 4 1 200 | | |
| Casing vol. (gal): | | Fr . 1 1 | 4 (C D L | . 41 | | | 21-00409 | | | |
| | ., | , | | | | pth (feet) – de | pth to wa | | [well ID (inches |)2]•0.0408 |
| where applicable) | 1278 | 1233 | 1238 | 1243 | 1246 | pth (feet) – de | pth to wa | | [well ID (inches |) ²] • 0.0408 Remarks |
| (where applicable) Time ("24:00" hr) | 1278 | 1233 | 1238 | 1243 | | oth (feet) – de | pth to wa | | [well ID (inches | |
| Where applicable) Time ("24:00" hr) Purge vol. (gal) | 1278 | 1233 | 1238 | 1243 | 1246 | pth (feet) – de | pth to wa | | [well ID (inches | |
| Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) | | | 1238 | | 1246 | pth (feet) – de | pth to wa | | [well ID (inches | |
| Purge vol. (gal) Purge rate (mL/min) PH (su) | 60 | 5.12 | 6.08 | | 1246 | pth (feet) — de | pth to wa | | [well ID (inches | |
| Where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) | 60 | | 6.08 | 6.09 | 1246 | pth (feet) – de | pth to wa | | [well ID (inches | |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) Spec. cond. (µS/cm) | 60 6.25 [9.1 2277 | 6.12 | 6.08 | 6.09 | 1246 2.3 6.10 19.4 2264 | pth (feet) – de | pth to wa | | [well ID (inches | |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) | 60 6.25 [7.1 2277 0.87 | 6.12 19,7 2279 0.81 | 6.08 14.0 2174 0.58 | 6.09 19.3 2269 0,49 | 1246 2.3 6.10 19.4 2264 0.48 | pth (feet) – de | pth to wa | | [well ID (inches | |
| Where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) DH (su) Femp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) DRP (mV) | 60 6.25 [3.1 2277 0.87 -154.5 | 6.12 190,7 22.79 0.81 -1585 | 6.08 19.0 2174 0.58 -(12,8 | 6.09 19.3 2269 0,49 -116.7 | 1246 2.3 6.10 19,4 2264 0.48 168,2 | pth (feet) – de | pth to wa | | [well ID (inches | |
| (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) | 60 6.25 [7.1 2277 0.87 | 6.12 190,7 22.79 0.81 -1585 | 6.08 19.0 2174 0.58 -(12,8 | 6.09 19.3 2269 0,49 | 1246 2.3 6.10 19,4 2264 0.48 168,2 | pth (feet) – de | pth to wa | | [well ID (inches | |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) OH (su) Femp. (°C) Spec. cond. (µS/cm) O.O. (mg/L) DRP (mV) Furbidity (NTU) Color/tint | 60 6.25 [7.1 2277 0.87 -154.5 4.02 | 6.12 190,7 22.79 0.81 -1585 | 6.08 19.0 2174 0.58 -(12,8 | 6.09 19.3 2269 0,49 -116.7 | 1246 2.3 6.10 19,4 2264 0.48 168,2 | pth (feet) – de | pth to wa | | [well ID (inches | |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) oH (su) Femp. (°C) Spec. cond. (µS/cm) O.O. (mg/L) ORP (mV) Furbidity (NTU) Color/tint | 60 6.25 [3.1 2277 0.87 -154.5 4.02 acer | 6.12 190,7 22.79 0.81 -1585 | 6.08 19.0 2174 0.58 -(12,8 | 6.09 19.3 2269 0,49 -116.7 | 1246 2.3 6.10 19,4 2264 0.48 168,2 | pth (feet) – de | pth to wa | | [well ID (inches | |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) OH (su) Femp. (°C) Spec. cond. (µS/cm) O.O. (mg/L) ORP (mV) Furbidity (NTU) Color/tint Odor | 60 6.25 [7.1 2277 0.87 -154.5 4.02 CLEAR- NONE | 6.12 18,7 2279 0.81 -158,5 4,16 | 6.08 19.0 2274 0.58 -162,8 2446 | 609 63,3 2269 0,49 -166.7 2,42 | 1246 2.3 6.10 19.4 2264 0.48 168.2 1208 | | pth to wa | | [well ID (inches | Remarks |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) DRP (mV) Furbidity (NTU) Color/tint Ddor Sample Data Sample ID | 60 6.25 [3.1 2277 0.87 -154.5 4.02 acer | 6.12 196.7 22.79 0.81 -156.5 4.16 | 6.08 18.0 2274 0.58 -112,8 2146 | 609 63,3 2269 0,49 -166.7 2,42 | 1246 2.3 6.10 19,4 2264 0.48 168,2 | # Filtered | | ter (feet)] | [well ID (inches | Remarks |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) OH (su) Femp. (°C) Spec. cond. (µS/cm) O.O. (mg/L) ORP (mV) Furbidity (NTU) Color/tint Odor | 60 6.25 [7.1 2277 0.87 -154.5 4.02 CLEAR- NONE | 6.12 190,7 22.79 0.81 -158,5 4.16 | 6.08 19.0 2274 0.58 -162,8 2446 | 609 63,3 2269 0,49 -166.7 2,42 | 1246 2.3 6.10 19.4 2264 0.48 168.2 17.09 | | | ter (feet)] | [well ID (inches | Remarks |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) DRP (mV) Furbidity (NTU) Color/tint Ddor Sample Data Sample ID | 60 6.25 [7.1 2277 0.87 -154.5 4.02 CLEAR- NONE | 6.12 190,7 22.79 0.81 -158,5 4.16 | 6.08 18.0 2274 0.58 -112,8 2146 | 6.09 19.3 2269 0,49 -166.7 2,42 | 1246 2.3 6.10 19.4 2264 0.48 168.2 17.09 | # Filtered | | ter (feet)] | [well ID (inches | Remarks |
| where applicable) Fime ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Femp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Furbidity (NTU) Color/tint Odor Sample Data Sample ID | 60 6.25 [7.1 2277 0.87 -154.5 4.02 CLEAR- NONE | 6.12 190,7 22.79 0.81 -158,5 4.16 | 6.08 18.0 2274 0.58 -112,8 2146 | 6.09 19.3 2269 0,49 -166.7 2,42 | 1246 2.3 6.10 19.4 2264 0.48 168.2 17.09 | # Filtered | | ter (feet)] | [well ID (inches | Remarks |

| Facility: Old / | Tidlano | / | | | Site ID: | : M | W-221) | Sam | pler: A514 | , | | × |
|--|----------|---------------|----------|------------|----------|---------|---------------|--------------|-----------------|-----------|---------------|-------------------------------|
| | 3013 - | 1020 | -037 | 2 | Date: | 4/ | 24/18 | | | | | FTN Associates, Lt |
| | | | | | | | 17.10 | | | | | |
| Site Description | | | | | | | | | | | | |
| Type: ☑Monitoring V | | mporary | Well [| Extraction | on Well | Pro | | | - 0 | | Borehole | Other |
| Weather: Clu | ~ | | | | mp (°F): | | 72 | | V | Vind: | 7~ | کر م |
| Well Locked? 🏹 Ye | | | | h (ft)니: | 2,27 | Dar | mage/repai | rs need | ded: trin | , | veset | la hia |
| Remarks: F2+ | : O~ | | - | | | .,. | | | | | | |
| 16 | - 02 | 7/ | | | | | | | | | | |
| Water Level Data | | | | | | | | | | | | |
| Measuring point desc | ription: | 1 | Water le | vel Mete | er Make/ | Mode | el No. | | Serial No | . (Op | tional): | |
| Mark/notch on TO | DĈ | | | IWA | #4 | | | | | | | |
| North rim of TOC |) | | Pre-pu | | Pre-purg | | During | 20 | Purge | | After | Remarks |
| Other: | | | initia | | onfirmat | ion | purging | 3 | end | _ | mpling | |
| Time ("24:00" hr) | | | 1118 | | 1120 | | 1156 | | 1213 | 10 | 104 | |
| Depth to Water (ft) | | | 5,47 | | 5,60 | | 5-95 | | 6.03 | 6. | 15 | |
| Date (mm/dd/yy) | X 65 | | 4/23/ | | 124/1 | 8 - | | | | - | | * |
| LNAPL Thickness (ft | | | van | | | | | | | | | |
| DNAPL Thickness (find Note: Record "S" in Remains. | | | observed | | | | | | | | | |
| Note: Record 5 III Remai | ks comin | ii siiceii ii | OUSCITCU | * | | | | | | | | |
| Field Data | | | | | | | | | | | | |
| Instrument Make/Moo | del No: | Unit o | r Serial | No: | | | ump descri | | | | | escription: |
| YOI PROP | | - | 5 | | 2 | ַן ן | Peristal | | | | | posable polyethylene |
| MICRU TR | | - | 5 | | | | ☐ Bladder | | cated / portal | ble) | | posable Teflon posable PVC |
| Purge depth (ft): | | 37 | | | Wello | TOPS C | dry during | | g: Yes | | | posable i ve |
| Casing vol. (gal): | ~ | (1) | | | † - · | | | | | - | | 2 - |
| (where applicable) | | | | | = [total | l deptl | h (feet) – de | pth to v | water (feet)] • | [well | ID (inches | 0.0408 |
| Time ("24:00" hr) | 1124 | 1134 | 1144 | 1154 | 1204 | 121 | 2 | | | |] | Remarks |
| Purge vol. (gal) | | | , de | | | 1 | 3 | | | | | |
| Purge rate (mL/min) | 25 | | | | | | 2 | | | | | |
| pH (su) | 6.64 | 6.61 | 6.79 | 1.97 | 6.85 | 681 | | | | | | |
| Temp. (°C) | 19,4 | 21,6 | 22.1 | | 22.7 | | | | | | | |
| Spec. cond. (µS/cm) | 721 | 725 | 7241 | | 723 | 70 | 3 | | | | | |
| D.O. (mg/L) | 2.87 | | | 190 | 1,65 | | | | | | | |
| ORP (mV) | | | - | | | | | - | | | | |
| | -140.2 | | | -135. | | | | - | | | - | |
| Turbidity (NTU) | 13,97 | 120 | 11.38 | 12.88 | 10-00 | 7.7 | 8 | | | | | |
| Color/tint | at the | | | | | | | | | | | |
| Odor | NONE | | | | | 1 | | | | | | 2 |
| Sample Data | | | | | | | | | | ě: | | |
| | | | | | itainers | # | # Filtered | | | | Remarks |) |
| MW-22D | | 215 | 4 | | | 0 | ILA | yler, IL Pay | ky 17 | Jack Plan | Me, 40Ml 6142 | |
| / 100 -01) | 4/24/ | 10 1 | | | | - | | 1 - /// | 100) | 7 | 7/4-1-0 | Y (- 190 Bin) |
| | | | | | | + | | - | | | | |
|) | | | | | | | | L | | | | |
| Sampler's Name (prin | it): A (| FY I | d 1 a | . 7 . 1 | | | Samr | ler Si | enature: | (11) | M. | |

| Facility: OMP | | | | | Site ID | : / | 4W | -23 | Sample | er: A | 11 | | |
|----------------------------|-----------|----------|------------------|-----------|-----------------------|------|-------|--|----------------|--------------|------------|--------------|-------------------------------|
| ject Number: 03 | 013-002 | 20-03 | 32 | | Date: | | | | | | | | FTN Associates, Ltd |
| Site Description | | | | | | | | | | | | | |
| Type: ☑Monitoring W | Vell □Te | emporar | y Well [| Extract | ion Well [|] Pr | oduc | tion Wel | l De | | | | |
| Weather: Claudy | | | | Air Te | emp (°F): | | 6 | 8 | | | Wind: | O mpl | 4 |
| Well Locked? ☑ ¥es | s 🗌 No | Т | otal Dep | th (ft)57 | 2.30 | Da | amag | e/repair | rs neede | d: 4, | Wind: | etatis | 9 |
| Remarks: Fe 34 = 2. | .0 | | | | | | | | | | | | |
| Water Level Data | | | | | | | | | | | | | |
| Measuring point descr | | | Water le | | er Make/ | | lel N | 0. | | Serial 1 | No. (Optio | nal): | |
| Mark/notch on TO | | - | D. | | ATHY | | - | n : | | D. | 1 4 | , | <u>\(\frac{1}{2}\)</u> |
| North rim of TOC Other: | | | Pre-pu initia | | Pre-purg confirmat | | | During purging | 9.4 | Purge end | | ter oling | Remarks |
| Time ("24:00" hr) | _ | | 1059 | | 455 | 1011 | _ | 726 | | oz. | 175 | _ | |
| Depth to Water (ft) | | \neg | 7.47 | | 7.47 | | | 57 | | 58 | 7.0 | - | |
| Date (mm/dd/yy) | | | 4-23 | | 1.17 | | 4. | , | -/- | 39 | 7.0 | ' | |
| LNAPL Thickness (ft) | | () | None | | | | | | | | | | |
| DNAPL Thickness (ft) | | | None | | | | | | | | | | |
| Note: Record "S" in Remark | ks Column | if sheen | is observed | 1. | | | | | | | | | |
| Field Data | | | | | | | | | | | | | |
| Instrument Make/Mod | | Unit | or Serial | No: | | | | p descri | | | | | escription: |
| YSI PROPUS | | - | - 4 | 2 | | | | Peristalt | | | | | osable polyethylene |
| MERROTEN | | - | | 5 | | | | Bladder Submer | | ted / por | table) [| | oosable Teflon oosable PVC |
| Purge depth (ft): | 21 | 141 | | | Well o | nes | _ | | 20/11/20/20/20 | ΠV | es 🛮 No | | oosable 1 v C |
| Casing vol. (gal): | | -(-) | | | - | | | | | | | | 21 - 0.0400 |
| (where applicable) | · · | | _ | - | = Ltotal | | | | | | | | o ²] • 0.0408 |
| Time ("24:00" hr) | 1510 | 1520 | 1505 | 1530 | 1535 | 150 | 40 | 1545 | 1550 | 1555 | 1558 | | Remarks |
| Purge vol. (gal) | | | | | | | | | | | 1.60 | 1600 | |
| Purge rate (mL/min) | 80 | 50 | 7 | | | _ | | | | | | | |
| pH (su) | 6.79 | 6.86 | 6.89 | 692 | 6.94 | 6. | 93 | 6.92 | 6.92 | 6.95 | 6,94 | 6.93 | * |
| Temp. (°C) | 17.4 | 18.2 | 18.9 | 19,2 | 17.8 | 17 | | | 14.4 | | 17.7 | 17.9 | |
| Spec. cond. (µS/cm) | 866 | 882 | 884 | 888 | 895 | 87 | 79 | 877 | 877 | 878 | 870 | 873 | |
| D.O. (mg/L) | 3,51 | 156 | 2.19 | 2.01 | 1,85 | 1,0 | 12 | 1,08 | 0.86 | 0,8 D | 0.70 | 0.71 | |
| ORP (mV) | -104,1 | -1379 | | | -145,6 | -15 | 3,0 | -155.0 | -1539 | -156.5 | -199,7 | -158- | j |
| Turbidity (NTU) | 5.13 | 7.67 | 9.29 | 4.62 | | 3 | | | 41.37 | | 3,44 | 3.06 | • |
| Color/tint | CLEAR | | | | | | | | | | | -> | H-9/L- |
| Odor | NUNE | | | | 4 | | | | | | | 1 | * |
| Sample Data | | | | | | | | | | | | | |
| Sample ID | Date | | Time | # Coı | ntainers | | # Fil | ltered | | | R | emarks | |
| EB-2 | 4-23- | 18 1 | 334 | 4 | | | (| 0 | PUST 1 | la/L LA | 1 NW | 4 III | 1 |
| 116-23 | T | | 605 | L | I | | - | 0 | | | | | |
| DUP-10- 23 | V | | 705 | 7 | | 0 | | 7 x 16 Angles, 12 L Plantes, 14 175 x L plantes 13440. | | | | | |
| | | | | | | | | | | 111/10 | 7.00 | 17 17779 | 1 100/100/00 |
| Sampler's Name (print |): ALE | × H | AnzIA | , | | | | Samp | ler Signa | ature: | aler | Tank | • |

| Site ID: NEELEY Sampler: EW Sampler: EW Sampler: EW Determine Site Description | |
|--|---------------|
| Type: Monitoring Well Temporary Well Extraction Well Production Well Dewatering Well Borehole Other Levident Weather: Notation Well Production Well Dewatering Well Borehole Other Levident Wind: Cally Well Locked? Yes No Total Depth (ft) 9.15 Damage/repairs needed: Notation Corporates: Water Level Data Measuring point description: Mark/notch on TOC Mark/notch on TOC North rim of TOC Pre-purge Pre-purge During Purge After Remarks | iàl W |
| Type: Monitoring Well Temporary Well Extraction Well Production Well Dewatering Well Borehole Other Levident Weather: Now Air Temp (°F): 59°F Wind: Carp Well Locked? Yes No Total Depth (ft) 9.15 Damage/repairs needed: New North Carp Remarks: Water Level Data Measuring point description: Mark/notch on TOC Mark/notch on TOC North rim of TOC Pre-purge Pre-purge During Purge After Remarks | iàl W |
| Weather: Nowal Air Temp (°F): 59°F Wind: Calm Well Locked? Yes No Total Depth (ft) 9.15 Damage/repairs needed: Nowal No | |
| Well Locked? Yes No Total Depth (ft) 9.15 Damage/repairs needed: Nucl No. (Optional): Water Level Data Measuring point description: Mark/notch on TOC North rim of TOC Water level Meter Make/Model No. NWA **8 Pre-purge Pre-purge During Purge After Remarks | |
| Water Level Data Fe2t : 1.5 Mg | |
| Water Level Data Fe2t : 15 M Measuring point description: Mark/notch on TOC North rim of TOC Water level Meter Make/Model No. NWA ** Pre-purge Pre-purge During Purge After Remarks | |
| Measuring point description: Mark/notch on TOC North rim of TOC Water level Meter Make/Model No. NWA ** 8 Pre-purge Pre-purge During Purge After Remarks | |
| Measuring point description: Mark/notch on TOC North rim of TOC Water level Meter Make/Model No. North rim of TOC Pre-purge Pre-purge Pre-purge Pre-purge Pre-purge Pre-purge Purge After Remarks | |
| North rim of TOC Pre-purge Pre-purge During Purge After Remarks | - |
| North rim of TOC Pre-purge Pre-purge During Purge After Remarks | |
| | - 1 |
| Unitial confirmation purging end sampling | $\overline{}$ |
| Time ("24:00" hr) NIL 1041 1105 1119 135 | |
| Depth to Water (ft) 0.89 0.92 1.01 1.05 | |
| Date (mm/dd/yy) LNAPL Thickness (ft) (If present) | |
| DNAPL Thickness (ft) (If present) V NK: Not yecorded | |
| Note: Record "S" in Remarks Column if sheen is observed. | |
| Field Data | |
| Instrument Make/Model No: Unit or Serial No: Pump description: Bailer description: | |
| Peristallic Disposable polyethyle | ne |
| ☐ Bladder (dedicated / portable) ☐ Disposable Teflon☐ Submersible ☐ Disposable PVC | - 1 |
| Purge depth (ft): Well goes dry during purging: Yes No | \dashv |
| Casing vol. (gal): = [total depth (feet) – depth to water (feet)] • [well ID (inches) ²] • 0.0408 | |
| where applicable) | |
| Time ("24:00" hr) 047 1052 1057 1107 1110 113 1110 119 Remarks | |
| Purge vol. (gal) | |
| Purge rate (mL/min) 135 | |
| pH (su) 6.79 6.54 6.58 6.62 6.63 6.61 6.59 6.59 6.59 | |
| Temp. (°C) 14.3 14.0 14.1 14.1 14.3 14.2 14.3 14.4 | |
| Spec. cond. (μS/cm) 21, μ 257.9 208.1 208.4 208.6 208.6 208.1 | |
| D.O. (mg/L) 2.06 0.48 0.39 0.33 0.44 0.27 0.46 0.26 0.26 | |
| ORP (mV) -28,3 -512 -51,7 -63,5 -65,3 -63,9 64,4 -64,1 -65,1 | |
| Turbidity (NTU) 96.4051.13 39.35 [7].69 29.69 [20.84] [1.16] [24.11] [72.69] | |
| Color/tint Clear > Clear | |
| Odor Sulfuy | |
| Sample Data | |
| Sample ID Date Time # Containers # Filtered Remarks | |
| NEELET 01/20/18 1120 4 18 INIC amber: 1 x1C partic; 1x125m | $\overline{}$ |
| plastic; 1x 40 ml glass | |
| planto tx to the splan | |
| | |
| Sampler's Name (print): Elijabeth Studibally Sampler Signature: Clay W Cudlah | |

| | I DL AN | 1/ | | | Site ID: | | | Sampl | c1. // | 312 | | | |
|---|---|--|--|---|-------------------|-------------------------------|--|-----------------------------|-------------|-----------|---|--|---|
| oject Number: 03013-420-633 | | | | | Date: | : 4/15/18 | | | | | | FTN Associates, Lt | |
| Sit. Description | | | | | | | | | | | | | |
| Site Description Type: Monitoring V | Vell Cl.Te | mporent. | Well | Evtrantia | n Woll [| 7 Producti | on Wall | □De | watering 1 | Wall 🖂 I | Doroholo | □ Oth | COMP. |
| | | inporary | Well _ | | np (°F): | | OII WEII | Пре | | Wind: | | | cı |
| Weather: Slyl | | Tm | | | | | , . | - | | | - | والمهد | |
| Well Locked? Ye | s No | To | tal Deptl | 1 (ft)_Z | 345 | Damage | /repair | s neede | d: // | emove | fire | ant | raound |
| Remarks: | | | 4 | | | | | | | | | | |
| | | | | 4 | | | | | | | | | |
| Water Level Data | | | | | | | | | | | | | |
| feasuring point description: Mark/notch on TOC | | | Water lev | | r Make/I 4 ⊯ 4 | Model No |). | | Serial N | ional): | | | |
| North rim of TOC | | | Pre-pur | | Pre-purg | | During | T | Purge | I | After | | n 1 |
| Other: | | | initial | | onfirmati | | urging | | end | | npling | | Remarks |
| Time ("24:00" hr) | | | 1248 | | 426 | | 139 | 10 | 147 | IU | 58 | | |
| Depth to Water (ft) | | | 0.06 | | 0.30 | 0. | 32 | 0 | 34 | 0. | 34 | | |
| Date (mm/dd/yy) | | | 123/19 | | 1/25/ | | | | | | ' | | |
| LNAPL Thickness (fi | | | Heen | | | | | | 95 | | | | |
| DNAPL Thickness (f | | | NONE | | | | | | | | 1 | | |
| Note: Record "S" in Rema | rks Column | if sheen is | observed. | | | | | | | | | | |
| Field Data | | | | | | | 1 | | | | | | |
| Instrument Make/Moo | del No: | I Init o | r Serial l | No: | | Dumn | descrip | ntion: | | | Bailer d | eccrin | tion: |
| | | Omt O | i ocitat i | NO. | | I Fullib | descri | | | | Dallel u | cscrib | IOII. |
| | | | | | | | | ic | | | | | |
| YSI PRU PLUS | | - | | 5 | | ₩ P | eristalti | | ted / port | table) | ☐ Dis | posabl | e polyethylene |
| | | | | 5 | | ₽ P | eristalt ladder | (dedica | ted / port | table) | ☐ Dis | posabl posabl | e polyethylene e Teflon |
| 1 CERUTE | | _ | | 5 | Well g | ₽ P B □ S | eristalt ladder ubmers | (dedica | | | ☐ Dis☐ Dis☐ Dis | posabl posabl | e polyethylene |
| Purge depth (ft): Casing vol. (gal): | | ~18 | | 5 | | ₽ P | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🖄 N | ☐ Dis ☐ Dis ☐ Dis | posabl posabl posabl | e polyethylene e Teflon e PVC |
| Purge depth (ft): Casing vol. (gal): (where applicable) | | ~/3 | | | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) | | ~/8 | 1443 | 1446 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posable posabl | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) | | ~\ \\ | | | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) | 1433 | 1438 | 1443 | 1446 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) | 1433 200 6,63 | ~\} 1438 165 | 1443 | 1446 1.70 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) | 1433 200 6,63 15,6 | 1438 145 668 15.6 | 1443 | 1446 1.70 15.6 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) | 1433 200 6,63 15,6 | 1438 145 668 15.6 | 1443 1570 151 | 1446 1.70 15.6 1201 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) | 1433 200 6,63 15,6 1199 0,43 | 1438 165 668 15.6 1201 | 1443 1570 151 1202 0.20 | 1446 1.70 15.6 1201 0.70 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) | 1433 200 6,63 15,6 1199 0,43 -166,9 | 1438 145 668 15.6 1201 0.25 -1766 | 1443 15.4 1202 0.20 -1433 | 1446 1.70 15.6 1201 0.70 184.7 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) | 1433 200 6,63 15,6 1199 0,47 -166,9 0,71 | 1438 145 668 15.6 1201 0.25 -1766 | 1443 1570 151 1202 0.20 | (446 1.70 1.70 15.6 (20) (3.20 181) | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint | 1433 200 6,63 15,6 1199 0,43 -166,9 0,71 CXEAR | 1438 145 668 15.6 1201 0.25 -1766 | 1443 15.4 1202 0.20 -1433 | 1446 1.70 15.6 1201 0.70 184.7 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint | 1433 200 6,63 15,6 1199 0,47 -166,9 0,71 | 1438 145 668 15.6 1201 0.25 -1766 | 1443 15.4 1202 0.20 -1433 | (446 1.70 1.70 15.6 (20) (3.20 181) | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posabl posabl posabl s) ²] • 0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint Odor | 1433 200 6,63 15,6 1199 0,43 -166,9 0,71 CXEAR | 1438 145 668 15.6 1201 0.25 -1766 | 1443 15.4 1202 0.20 -1433 | (446 1.70 1.70 15.6 (20) (3.20 181) | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🔀 l | Dis | posable posabl | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint Odor | 1433 200 6,63 15,6 1199 0,43 -166,9 0,71 CXEAR | 1438 145 668 15.6 1201 0.25 -176.6 | 1443 15.4 1202 0.20 -1433 | 1446 1.70 15.6 1201 0.720 181 | = [total | P B S | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🖎 I | Dis | posabl posabl s) ²]•0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data | 1433 200 6,63 15,6 1199 0,47 -166,9 0,71 (LEAR)E3 | 1438 1438 145 668 15.6 1201 0.25 -176.6 | 1443 15,1 1202 0.20 -143,3 3.06 | (446 1.70 15.6 120 137 181 | = [total | P B B S Soes dry d depth (fee | eristalti ladder ubmers uring p | (dedica sible urging: | Ų Y€ | es 🖎 I | Dis Dis No D (inches | posabl posabl s) ²]•0. Remar | e polyethylene e Teflon e PVC 0408 ks |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data Sample ID | 1433 200 6,63 15,6 1199 0,47 -166,9 0,71 CXEAR /ES | 1438 1438 15.6 15.6 1201 0.25 -176.6 0.52 | 1443 152 152 1202 0.20 1433 3.06 | 1446 1.70 15.6 1201 0.720 181 | = [total | # Filt | eristalti ladder ubmers uring p | (dedicatible urging: | ter (feet)] | es 🗷 I | Dis Dis No D (inches Public II) | posabl posabl s) ²]•0 Remar | e polyethylene e Teflon e PVC 0408 ks 51 ble + 59mple urg e back |
| Purge depth (ft): Casing vol. (gal): (where applicable) Time ("24:00" hr) Purge vol. (gal) Purge rate (mL/min) pH (su) Temp. (°C) Spec. cond. (µS/cm) D.O. (mg/L) ORP (mV) Turbidity (NTU) Color/tint Odor Sample Data Sample ID | 1433 200 6,63 15,6 1199 0,47 -166,9 0,71 (LEAR)E3 | 1438 1438 15.6 15.6 1201 0.25 -176.6 0.52 | 1443 15,1 1202 0.20 -143,3 3.06 | 1446 1.30 15.6 120 1317 181 | = [total | P B B S Soes dry d depth (fee | eristalti ladder ubmers uring p | (dedicatible urging: | ter (feet)] | From Land | Dis Dis No D (inches Hus) Remarks | posabl posabl s) ²]•0 Remar | e polyethylene e Teflon e PVC 0408 ks |

Groundwater Sampling Record

| Padita () | | | _ | | Cita ID | . D. | | Commi | - A | | |
|--|--|-------------|----------|-----------|-----------------|------------|-----------|-----------|---------------|-------------------|---------------------------|
| | PILAN | | | | Site ID | | | Sample | er. 74 | 511 | ETNI Associates I to |
| bject Number: 03 | 343- | 0500 | -032 | | Date: | 4/25 | 118 | | | | FTN Associates, Ltd |
| Site Description | | | | | | | | | | | |
| Type: Monitoring W | /ell Te | mporary | Well [| Extracti | on Well [| Produc | tion We | ll De | watering W | ell Borehole [| Other |
| Weather: Slight | Ram | | | Air Te | mp (°F): | | (, c) | | V | Wind: | 26 |
| Well Locked? Yes | s \square No | To | tal Dep | th (ft)_/ | | Damas | ge/repai | rs neede | d: 1 | in veret | up b |
| Remarks: | | | | | | | | | 9.10 | 1 minuite | M. TIPALY FIFT |
| | | Te | 1 > | 0,5 | 17/1 | 1 | | | | 1 , 10000) | |
| | | | | | / | | | | | | |
| Water Level Data | | | W/-4 1 | 1 1 (| - Males | M. J.IN | T_ | | Carial NI | (Ontinual) | |
| Measuring point descri Mark/notch on TO | | | water | evel Mete | T Make/ | A #4 | NO. | | Senai No | o. (Optional): | |
| North rim of TOC | | - | Pre-pu | ırge | Pre-purg | | During | , | Purge | After | |
| Other: | | | initi | | onfirmat | | purging | | end | sampling | Remarks |
| Time ("24:00" hr) | | | NI | 2 | 119 | | 1144 | 1 | 150 | 1230 | |
| Depth to Water (ft) | | | 1 | | 2.03 | 3 7 | 2,10 | 1 | 20 | 2.10 | |
| Date (mm/dd/yy) | | | | | 1/75/1 | 6 - | | | | *** | |
| LNAPL Thickness (ft |) (If present | t) | | / | | • | | | | | |
| DNAPL Thickness (ft | The state of the s | | | | | | | | | | |
| Note: Record "S" in Remar | ks Column | if sheen is | observe | d. | | | | | | | |
| Field Data | | | | | | | | | | | |
| Instrument Make/Mod | lel No: | Unit | r Serial | No: | | Pun | ip descr | intion: | | Bailer de | escription: |
| XII PRO PLU | | Ome | 8 | | | | Peristal | | | | osable polyethylene |
| MERUTA | | | 5 | | | | | | ted / porta | ible) 🔲 Disp | osable Teflon |
| | | | - 15 | | , | | Submer | rsible | | ☐ Disp | osable PVC |
| Purge depth (ft): | ~ | 26 | | | Well | goes dry | during | purging: | [□ Yes | No No | |
| Casing vol. (gal): (where applicable) | | | | | = [tota | l depth (f | eet) – de | pth to wa | ter (feet)] • | [well ID (inches) | ²] • 0.0408 |
| Time ("24:00" hr) | 1126 | 1131 | 1134 | 6 1141 | 1146 | 中华 | | | | R | Remarks |
| Purge vol. (gal) | | , | | | 1.4 | 1149 | | | | | |
| Purge rate (mL/min) | 60 | | | | | -> | | | | | |
| pH (su) | 639 | 6 34 | 630 | 6.28 | 12:27 | b.27 | | | | | |
| Temp. (°C) | 15,5 | 15,3 | 15.2 | 15.1 | 15.0 | 15,0 | | | | | |
| Spec. cond. (µS/cm) | 1641 | 642 | 641 | 641 | 640 | 640 | | | | | |
| D.O. (mg/L) | 0.59 | 0.61 | 1 | | | 0.43 | | | | | |
| ORP (mV) | -129,7 | - | | | | | | | | | |
| Turbidity (NTU) | 1420 | | | | | | | | | | |
| Color/tint | | | 7030 | 5 65,77 | 15,54 11,000 | | | | | | |
| | Brun | | | - | 1)m | CLEM | | | | | |
| Odor | acrid - | | | | | 7 | | | | | |
| Sample Data | + ilear | butbe | tan | tint | | | | | | | |
| Sample ID | Date | | Time | # Cor | ntainers | # F | iltered | | | Remarks | |
| RW-6 | 4/25 | 118 1 | 151 | L | | 0 | | LAMO | ~ 5VOC 14 | Plops Ann Ivi | Tis me playling, littlene |
| | | | | | | | | | | | 7 |
| 7 | | | | | | | | | | | |
| | | | | 2 | | | 18 | | | | |
| Sampler's Name (prin | t). A. | 11 | | 1 | | | Same | oler Sign | atute: | ale Plus | |
| | 1, F. | EX C | HULL | | | | Juni | LAN DIE | aturo. | ale Plus | |

Groundwater Sampling Record

| Facility: OLD M | TOL 1. | 0 | | | Site ID | . D | W-7 | Sampl | er: As | LI | |
|--|--|---------|----------|----------|-----------|---------|--------------------------|-----------|------------------|------------------|-------------------------------------|
| oject Number: O | FULAN | () 7 () | 127 | | Date: | | | Sumpi | CI. / | 19 | FTN Associates, Ltd |
| oject Number. | 015-0 | 020. | 092 | | Date. | 9/2 | 0/18 | | | | TTV Associates, Etc |
| Site Description | | | | | | | | | | | |
| Type: Monitoring W | /ell □Te | mporary | Well | Extracti | on Well [| Prod | uction Wel | l De | watering We | ll 🔲 Borehole [| Other |
| Weather: 1-1 EAvy | RATN | | | Air Te | mp (°F): | | 55 | | W | ind: 5 mg/s | |
| Well Locked? ⊠Yes | | To | tal Dept | | | v | age/repair | rs neede | d: Rem | ind: 5 mg/s | of accused |
| Remarks: | | | • | | | | | | 110770 | |) 1 7-11 47501 |
| Fe2+= 25 Mg | /L | | | | | | | | | | |
| Water Level Data | | | | | | | | | | | |
| Measuring point descri | ription: | | Water le | vel Mete | er Make/ | Model | No. | - | Serial No. | (Optional): | |
| ☐ Mark/notch on TO |)Ċ | | | | / | VW. | 1 FF 3 | | | | |
| North rim of TOC | | | Pre-pur | ge | Pre-purg | | During | | Purge | After | Remarks |
| Other: | | | initia | + | onfirmat | | purging | | end | sampling | +> |
| Time ("24:00" hr) | | | NR | T | 1251 | | 1309 | | 322 | 1338 | in voult & conte |
| Depth to Water (ft) | | | _ | | 0.18 | | 0.18 | | 3-19 | 0.19 | in voult a could |
| Date (mm/dd/yy) |) /IC | | NONE | | 1/25/ | | 22 2 2 | | | | Avi be puryed |
| LNAPL Thickness (ft DNAPL Thickness (ft | | | NUNE | r | Rodu(7 | UN | FRU15E | | | | |
| Note: Record "S" in Remar | A CONTRACTOR OF THE PARTY OF TH | | | | | | | | | | |
| | | | | | | | | | | | |
| Field Data | 1_1 NT | T Tools | - C:-1 | NT | | I D. | 1 | -4! | | Dailes de | |
| Instrument Make/Mod | | Unit | r Serial | NO: | | | mp descri Peristalt | | | | escription: posable polyethylene |
| MICRU TPU | | | 5 | | | | | | ited / portab | | oosable Teflon |
| <u> </u> | | | | | | | Submer | | | | oosable PVC |
| Purge depth (ft): | ~ | В | | | Well | goes dr | y during p | ourging: | [□ Yes | No No | |
| Casing vol. (gal): (where applicable) | | | | | = [tota | l depth | (feet) – de _l | pth to wa | iter (feet)] • [| well ID (inches) | o ²] • 0.0408 |
| Time ("24:00" hr) | 1258 | 1303 | 1308 | 1312 | 1315 | 1319 | 1322 | | | F | Remarks |
| Purge vol. (gal) | | | | | | | ~.3 | | | | |
| Purge rate (mL/min) | 80 | | | > | 140 | | \rightarrow | 1 | | | |
| pH (su) | 6-73 | 6.78 | 6,80 | 4.31 | 682 | 6.82 | 6.82 | | | | |
| Temp. (°C) | 14,8 | 14/8 | | | 15,2 | 15,3 | | | | | |
| Spec. cond. (µS/cm) | 8941 | 899 | | 905 | 901 | 900 | | | | | |
| D.O. (mg/L) | 0.91 | 0.51 | 0,35 | | 0.24 | | - | | | | |
| ORP (mV) | -107 | -115 | -118 | | -121 | -173 | | | | | |
| Turbidity (NTU) | 6.12 | 6086 | | | 1.78 | 3.52 | | | | | |
| Color/tint | CLEAR | | 0770 | 010 | 110 | 1.76 | , ,,,, | | | | |
| Odor | yes× | | | | | | - | | | | |
| | × Acri | 16 | | | | | | | | | |
| Sample Data | ~/40/10 | 7771 | " | | | | | | | | |
| Sample ID | Date | | Гіте | # Con | tainers | # | Filtered | | | Remarks | |
| RW-7 | 1/25/19 | 3 1 | 324 | 4 | | | 0 | 4/11 | LAMBE SU | UCg, IL Asin_ | , 12750NE MANS, 17 |
| | , , , | | | | | | | | 1 TUC | | 7 11 |
| | | | | | | | | | | | |
| | | | | 10 | | | | | | | |
| Sampler's Name (prin | t): ALE | x /7 | AMIJN | | | | Samp | ler Sign | ature: | alla He | и 4 |

· Transcilled on WZ7/18 by ASH

Page ____ of ____ **IDW Container Storage Log** 03013-0070-032 Project #: GLD MIDL AND Project Name/Location: Container Size: 55 GAL POT Steel Construction Material: Date Filled **Boring** Container Final Contents Location Number Number Moved To Disposition First Last PRONT GRAVEL NIA 4/24/18 225 GAL 4/70/18 Water PURGE WATER NA 4 /20/18 4/20/18 2 15 GAE Water + 50AP DECON WATER





| Facility or Project Name | | | AFIN # / County | | Sa | mple | | | Para | meters | Requ | ested | | Co | ntainer Ty | pe Code | | Media Code | Preserva | ation Code |
|--|----------|----------|----------------------|---------------------------|----------------|------------|-------------------|--------|-------------------------------------|--|------------|----------|-------|-------------------|--------------|-----------|------|------------------|--------------|------------|
| Old Midland Products | | ИP) | | _ ^ C | hara | cteris | tics | | Total | No. o | f Conta | ainers | | | olyethylene | /Plastic | w = | - water | A = Cool | to ≤ 6°C |
| Ola, Arkansa | | 1 | 75-00049 | থ | 1 | | l | ı | Ŧ | ڇَ | | | | G = GI | | | _ | groundwater | B = Sulfu | |
| Function Code 5 | 50014 | | 1 | ië | 1 | 1 | l | | <u>a</u> . | fate Kalii | | ا ، ا | | | nber Glass | | _ | liquid (not wate | 1 | |
| Printed Name of Sampler(s) | | | | ğ | | 1 | a | | ပြီ | Sul s | | Iran | - 1 | 0 = Ot | her (Spec | fy) | | soil or solid | D = NaOł | |
| | | | | 5 | l g | | - | | S C | e de | | | | | | | | edible tissue | E = Sodium 7 | |
| | | | * | Grab (1) or Composite (2) | Container Type | Media Code | Preservation Type | | Semivolatiles (PCP, PAH, Carbazole) | Anions chloride, sulfate, nitrate+ nitrite-N, alkalinity | 5 | Dissolus | | Instantan Flow | eous = | | 1 1 | whole fish other | F = Other | (specify) |
| Comple ID | Date C | ollected | Time Collected | 일 | ıtair | dia | Sen | o | nivo | ons ate+ | Total Iron | 130 | | | Field Mea | surements | | Latitude | Longitude | Lab# |
| Sample ID | (mm/ | dd/yy) | (hh:mm) | 8 | Ö | Ğ | F. | ည | Ser | Pit Ai | 흐 | á | - | DO (mg/L) | pH (SU) | Temp (°C) | Time | (dd.ddddd) | (bbbbb.bb) | |
| EB-2 | 4/2 | 3/18 | 1334 | 1 | 0 | G | F | 1 | 1 | 1 | 1 | | | NJA | N/A | MA | 1334 | | | |
| Mw-23 | | 1 | 1605 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | | 0.71 | 6,93 | 17.9 | 1605 | | | |
| D4P-1W-23 | | | 1705 | | | | | 3 | 2 | 1 | 1 | | | 1 | - | 1 | 1 | | | |
| EB-1 | | | 1335 | | | | | 1 | 1 | 1 | 1 | | | NIA | NIA | NIA | MIA | | | |
| MW-215 | | | 1548 | 1 | | Ш | | 1 | L | L | i | | | 0.33 | 6.05 | 16,5 | 1548 | | | |
| DUP-MW-215 | | | 1610 | | | Ш | | 3 | 2 | 1 | 1 | | | 1 | | 1 | 1 | | | |
| MW-21D | | | 1638 | | | | | 1 | 1 | 1 | Ø | 1 | | 0,46 | 6.89 | 16.6 | 1636 | | | |
| EB-3 | J | | 1735 | | | | | 1 | 1 | | 1 | | | MA | NIA | N/A | MA | | 1) | |
| EB-4 | 4-20 | 4-18 | 0715 | | | | | | | | | | | 1 | 1 | 1 | 1 | | | |
| MW-165 | | | 0925 | | | | | | | | | | | 0.81 | 6.62 | 17,1 | 0919 | | | |
| MW-16D | | | 0948 | | | | | | | | | | | 0,79 | 7.33 | 18.5 | 0945 | | | |
| MW-125 | | | 0908 | | | | Ш | J | 1 | J | V | | | 0.50 | 5,59 | 15.4 | 0906 | | | |
| Dup-125 | | | 0928 | | Ш | | | 3 | 2 | 1 | 1 | | | J. | 1 | - 1 | 1 | | | |
| MW-22D | | | 1215 | | Ш | | | 1 | 1 | 1 | 1 | | | 1,66 | 6.86 | 22.7 | 1212 | | | |
| MW-22S | 7 | <u></u> | 1250 | 1 | 1 | W | 1 | 1 | 1 | 1 | 1 | | | 0.48 | 6.10 | 18,4 | 1246 | | | |
| | | | | | _ | _ | _ | _ | _ | | | | | | | | | | | |
| CAMPLE CONDITION (IDON 5 | DEOCIDE: | NI ABI | | | | | | | | | | ADVO | | 101 5 00: | MATERIAL CO. | | - 13 | | | |
| SAMPLE CONDITION UPON F 1. Containers Correct | | | Report results to Di | anna | Kilb. | ırn 60 | 2.004 | A or T | dor M | inht 6 | | | | MPLE CON | | 602 0055 | | | | |
| | Yes _ | | Charge time to fur | | | | | - UI 1 | VIET VVI | IGHT O | 00-000 | o, AUC | LU Ld | DUI ALUI Y II | uniber 50 | -002-0950 | 21. | | | |
| | Yes _ | No | | | | | | | | | | | | | | | | | | |
| 4. Temp (*C) Upon Receipt | 1.9% | | | | | | | | | | * | | | | | ç. | | | | |
| FOR COMPLETION BY I | LAB ONLY | _ | | | | | | | | | | | | | | 4 | | | | |

| Date 4/24/18 Sampler (print) ALEX HAMEN ELIZABETH STUD Site Identification Old Midland Products; AFIN 75-00049; EPA Id# ARD980745 Site Address Hwy 10 Ola, AR 72853 Sample ID Sample Remarks Time (hhmm) Latitude Longitude Lab ID EB-2 Rest W-Blank ASH 13341 MW-73 1608 Dyp-MW-23 Nudrah of MW-23 1705 EB-1 Rest W Blank EWS 1327 MW-715 Nuplrah of MW-715 1648 Dyp-MW-715 Nuplrah of MW-715 1648 Dyp-MW-715 Field filtered metals 1638 EB-3 end of day blank EWS 1735 EB-1 end of day blank ASH 0715 MW-165 MW-165 MW-165 | |
|--|-------|
| Site Identification Old Midland Products; AFIN 75-00049; EPA Id# ARD980745 Site Address Hwy 10 Ola, AR 72853 Sample ID Sample Remarks Time (hhmm) Latitude Longitude Lab ID EB-2 Pest W-Blush ASII 1334 MW-73 104P-MW-23 104P-M 23 1705 EB-1 Post W Blank Ens 1325 MW-715 154B DUP-MW-715 74P-715 1610 MW-710 Field filtered metals 1638 EB-3 End of day blank Ens 1735 EB-4 End of day blank ASII 0715 MW-165 | BAKE |
| Sample ID Sample Remarks EB-2 Pert W-Blunk ASI) MW-Z3 DUP-MW-Z3 Posst W Blank Ens 1325 MW-Z15 DUP-MW-Z15 Puplrent of Mw-Z15 Pield filtered metals EB-3 EN of day blank Ens 1235 ENS-U end CF day blank ASId D9 Z Z | |
| EB-2 Part W-Blush ASH 1334 MW-Z3 DUP-MW-Z3 Part W Blank EWS 1325 MW-Z1S DUP-MW-Z1S Puplran of Mw-Z1S 1648 DUP-MW-Z1S Puplran of Mw-Z1S IOIC MW-Z1D Field filtral metals EB-3 EW of day blank EWS 1735 EB-41 end of day blank ASH D9 Z Z | |
| MW-Z3 DyP-MW-Z3 DyP-MW-Z3 Post he Blank Ens 1325 MW-Z1S DyP-MW-Z1S Tuplient of Mw-Z1S 1608 1705 EB-3 EW of day blank Ens 1725 EB-4 end of day blank ASIA DyZZ Mw-165 | |
| Dup-Mw-23 Nuplanh of Mw-23 EB-1 Post he Blank this 1325 Mw-215 Dup-Mw-215 Ruplanh of Mw-218 Dup-Mw-215 Field filtered metals 1638 EB-3 Ew of day blank this 1735 EB-4 end of day blank this 0715 Mw-165 Mw-165 | 21 |
| EB-1 Post he Blank Ens 1325 MW-215 DUP-MW-215 Puplrent of MW-215 MW-21D Field filtered metals 1638 EB-3 End of day blank Ens 1735 EB-4 end of day blank ASIA MW-165 MW-165 | - |
| MW-ZIS DUP-MW-ZIS Puplyon of Mw-ZIS 1010 MW-ZID Field filteral metals EB-3 EN of day blank ENS EB-4 end of day blank ASIA O715 MW-165 | |
| DUP-MW-ZIS Puplyon of Mw-ZIS 1010 MW-ZID Field filtered metals 1638 EB-3 end of day blank Ens 1735 EB-L/ end of day blank Asia 0715 Mw-165 09 Z Z | |
| MW-ZID Field filtered metals 1638 EB-3 END of day blank ENS 1735 EB-4 END of day blank ASIA 0715 MW-165 MW-165 | |
| EB-3 end of day blank ENS (735) EB-4 end of day blank ASIA 0715 MW-165 0972 | |
| EB-4 end of day blank ASIA 0715 MW-165 0922 | |
| Mw-165 0922 | |
| 110-162 | |
| MW-16D 0948 | |
| / ~ (0> | |
| MW-175 0908 | |
| Dup-Mw-125 0928 | |
| MW-27D 21715 | |
| MW-225 125C | |
| Lab Use Only: Custody seal on each container?: YES NO Labels/COC agree?: YES NO | * |
| Date/Time Relinquished By Received By | |
| H 124/2018 Eurabeth Studebaker, Geologist Jim Chaig FTN | |
| Time 14.15 Signature Signature | |
| Date Name/Title Name/Title/ | |
| 4-24-2018 Jim Craix FTU | n Sup |
| 1548 Signature Signature | |
| Date Name/Title Name/Title | |
| Time Signature Signature | |
| | |
| Date Name/Title Name/Title | |
| Time Signature Signature | |





| Facility or Project Name | | AFIN # / County | | Sai | mple | | | Parar | neters | Requ | ested | | Co | ntainer Ty | pe Code | | Media Code | Preserva | ation Code |
|----------------------------|----------------|----------------------|---------------------------|----------------|------------|-------------------|---------|-------------------------------------|--|------------|----------|-------|-------------------|-------------|------------|-----------|-------------------|--------------|------------|
| Old Midland Products | | | | harac | | ics | | Total | No. of | Conta | iners | 1 | | olyethylene | e/Plastic | | = water | A = Cool | to ≤ 6°C |
| Ola, Arkans | | 75-00049 | 8 | | | | | Ĩ. | it. | | | Je | G = GI | | | | groundwater | B = Sulfu | |
| Function Code | 50014 | | Grab (1) or Composite (2) | | | | | Semivolatiles (PCP, PAH, Carbazole) | Anions chloride, sulfate, nitrate+ nitrite-N, alkalinity | | 3 | | | nber Glas | | | liquid (not water | | |
| Printed Name of Sampler(s) | | | ı | | | 8 | | ပ္ပ | sul all | | 1-3 | 1 | 0 = Ot | her (Spec | ify) | | soil or solid | D = NaOH | |
| | | | 6 | Je Je | | Ę | | s (F | ide, | | \sim 1 | 1 | 05 | CV-SEW-CV | | | edible tissue | E = Sodium 1 | |
| | | | 5 | Container Type | Media Code | Preservation Type | | atile | ihlor nitri | _ | Dissolud | | Instantan Flow | eous = | | 100 | whole fish other | F = Other | (specity) |
| | Data Callantad | Time Collected | € | aj. | aC | er | | ivol | ns c | Total Iron | 3 | | | Field Mes | surements | | Latitude | Longitude | Lab# |
| Sample ID | Date Collected | (hh:mm) | g | ij | leg. | res | 700 | Sart | itral | otal | اک | | DO (mg/L) | pH (SU) | Temp (*C) | Time | | (dd.ddddd) | Lub II |
| | (mm/dd/yy) | | | | | | _ | | | | | | | | | | (66,6666) | (00.0000) | |
| MW-95 | 4/24/18 | 1349 1135 | 1 | Ö | G | F | 1 | 1 | 2 | Ø | 1 | | 2,20 | 6.15 | 25.1 | 1134 | | | |
| MW-90 | 1 | 1220 | 1 | 1 | V | 1 | 1 | 1 | T | 1 | | | 1.11 | 6.58 | 23.3 | 1218 | | | 17.8 |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | *, | | | |
| | | | | | | | | | | | | | | | | 1 | | | |
| SAMPLE CONDITION UPON | RECEIPT IN LAB | | _ | | _ | | | | | REM | ARKS | / SAN | APLE CON | MENTS | | | II | | |
| 1. Containers Correct | yes No E | Report results to Di | | | | | 4 or Ty | ler Wr | ight 68 | | | | | | 1-682-0955 | <u>i:</u> | | | |
| | Yes No C | harge time to fun | ctio | n cod | e 500 | 14 | | | | | | | | | | posed in | | | |
| 3. Received On Ice | Yes No | | | | | | | | | | | | | | - | | | | |
| 4. Temp (°C) Upon Receipt | 1.90€ | | | | | | | | | | | | | | | | | | 54 |
| FOR COMPLETION BY | LAB ONLY | | | | | | | | | | | | | | | | | | |

| | ARKANSAS DEPA | RTMENT C | | | | | | | | | |
|---------------------|--------------------------|-----------|---------|---------------------------|--------------|-----------|-----------|--|--|--|--|
| Date 4/14/18 | | Sampler (| (print) | ELI: | ADETH | STYDEBAK | ER | | | | |
| Site Identification | Old Midland Pro | ducts; A | FIN ' | 75-00 | 049; EPA | Id# ARD | 980745665 | | | | |
| Site Address | Hwy 10 Ola, AR | 72853 | | | | | | | | | |
| Sample ID | Sample Remarks | | Time (| hhmm) | Latitude | Longitude | Lab·ID | | | | |
| Mw-95 Mw-91) | | | 113 | 5 | | | | | | | |
| MW-91) | | | 17 | 20 | | | | | | | |
| , , | | | | | | | | | | | |
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| 4, | | | | | | | | | | | |
| Lab Use Only: Cus | tody seal on each contai | ner?: YES | S NO | Labels/COC agree?: YES NO | | | | | | | |
| Date/Time | Relinquished By | | | | eived By | | | | | | |
| Date 4/24/2018 | Name/Title | me Car | 1 ict | Name/ | Title Cred | | 1 | | | | |
| Time | Eurabeth Studebal | er, Ga | 10011 | Signatu | <u> </u> | ug FT | Ρ | | | | |
| 1405 | State (Virdulal | <u> </u> | | | Lui C | 5 | | | | | |
| Date | Name/Title | | | Name | Tiple Jeff (| lehr C | hen Supp. | | | | |
| 4-24-2018 Time | Signature Signature | Pru | | Signatu | ire 1 | | | | | | |
| 1548 | Juni (2) | | | Jeff cuch | | | | | | | |
| Date | Name/Title | | | Name/Title | | | | | | | |
| Time | Signature | | | Signature | | | | | | | |
| Date | Name/Title | | | Name/Title | | | | | | | |
| Time | Signature | | | Signatu | ire | | | | | | |





| Facility or Project Name | | - VI. 3 | AFIN # / County | | Sa | mple | | | | meter | | | | | ntainer Ty | | 13 | Media Code | Preserva | ation Code |
|---|-------|----------------------|---|---------------------------|----------------|----------------|-------------------|--------|-------------------------------------|---|------------|-----------|-------|-------------------|-------------------|------------------------|----------|------------------------------------|-------------------------|------------|
| Old Midland Products | | MP) | 75 00040 | _ | harad | teris | tics | | | l No. o | _ | ainers | | | lyethylene | e/Plastic | _ | water | A = Cool | |
| Ola, Arkansa Function Code 5 | | | 75-00049 | 8 | | | | | ¥. | . e | | | | G = Gl | ass nber Glass | | | groundwater | B = Sulfui | |
| Printed Name of Sampler(s) | 0014 | | | osite | | | | ı | д. П | sulfate, , alkalinity | | Las I | | | her (Speci | | | liquid (not water soil or solid | D = NaOl | |
| Times Hame of Campion(c) | | | | ᇤ | g | | _ y | ı | PC | P Z | | H | | | ner (opco | 17) | | edible tissue | E = Sodium 1 | |
| я | | | | Grab (1) or Composite (2) | Container Type | Code | Preservation Type | | Semivolatiles (PCP, PAH, Carbazole) | chloric + nitrite | <u>و</u> | Dissolved | | Instantan Flow | eous = | | | whole fish other | F = Other | (specify) |
| Sample ID | | Collected /dd/yy) | Time Collected (hh:mm) | _ | Contai | Media (| Preser | ည | Semivolatile Carbazole) | Anions chloride, s nitrate+ nitrite-N, | Total Iron | Diss | | DO (mg/L) | Field Mea | Surements Temp (°C) | Time | Latitude (dd.ddddd) | Longitude (dd.ddddd) | Lab# |
| MW-205 | 4/2 | 14/18 | 1512 | 1 | 0 | G | F | 1 | 1 | 1 | Ø | 1 | | 0.58 | 6.40 | 25,1 | 1509 | | | |
| MW-200 | | | 1545 | | | | 1 | | | | 1 | | | 1,47 | 6.21 | 21,0 | 1542 | | | |
| MW-10D | | | 1538 | | | | | | | | | | a. | 0.88 | 7.32 | 22.4 | 1536 | | | |
| MW-10S | | | 1616 | | | | | | | | | | 1 | 1.35 | 6:19 | 20,7 | 1615 | | 3 | |
| EB-6 | | | 1700 | | | | | | | | | | | NA | NIA | NA | NA | | #1 | 14 |
| EB-5 | | | 1718 | | | | | | | | | | | 1 | 1 | | 1 | | | * |
| MW-195 | 4/2 | 25/18 | 0910 | | | | | | | | | | | 0,63 | 533 | 175 | 0908 | | | |
| MW-19D | | | 0947 - | | | | | | | | | | | 0.31 | 6,33 | 15% | 0945 | | | |
| RW-6 | | | 1151 | | | | | | | | | | | 0,43 | 6,77 | 15.0 | 1149 | | | |
| MW-53 | | | 0853 | | | | | | | | | | | 0,29 | 6,45 | 15,4 | 0851 | | | |
| MU-015 | | | 1038 | | | | | | | | | | | 2.30 | 5,52 | 18,7. | 1035 | | | |
| MW-01D | 7 | | 1149 | | | | | | | | | | | 2.68 | 7.00 | 14.7 | 1147 | | | |
| RW-7 | 1 | , | 1324 | | 1 | V | 1 | 1 | | 1.1 | J. | V | | 0,18 | 6.85 | 15.3 | 1352 | | 1 | |
| | | | | | , | | | | | | | | | | + | and the same | **** | | | jā. |
| | | | (*) | | | | | | | | | | | | | 4 7 | S. P. | | | |
| | | | | | | | | | | | | | | | | - 2 | | | | |
| Ÿ | | | | | | | | | | | | | | | | 97 | (| | | |
| SAMPLE CONDITION UPON R | | | | | | | | | | | | | | IPLE COM | | * | | | | |
| 1. Containers Correct 2. COC & Labels Agree | Yes _ | No R | eport results to Dis harge time to fun | ction | Kilbu | rn 68 e 500 | 2-084 014 | 4 or T | /ler W | right 6 | 83-006 | 8; ADE | EQ La | boratory ni | umber 501 | -682-0955 | <u>:</u> | | | |
| 3. Received On Ice | Yes | No No | | | | | | | | | | | | | | - No. | | | | |
| 4. Temp (*C) Upon Receipt | 3.3°C | | | | | | | | | | | | | | | 7 | | | | |
| FOR COMPLETION BY L | | | | | | | | | | | | | | | | | | | | |

| | ARKANSAS DEPARTMENT CHAIN-O | OF ENVIRO OF-CUSTO | | ITAL QUALIT | Υ | ** | | | | |
|---------------------|--|-----------------------|------------|-------------|-----------|-----------|--|--|--|--|
| Date | Sampler | (print) | 1. | 1 | | | | | | |
| Site Identification | Old Midland Products; | AFIN 7 | 5-00 | 049; EPA | Id# ARD | 980745665 | | | | |
| Site Address | Hwy 10 Ola, AR 72853 | 4 | | | | | | | | |
| Sample ID | Sample Remarks | Time (hl | hmm) | Latitude | Longitude | Lab ID | | | | |
| MW-205 MW-ZOD | Metal, Add Altered | 1912 | | | | 7 | | | | |
| MW-20D | 40 | 1545 | | | | | | | | |
| MW-100 | | 1538 | ſ | | - | | | | | |
| MW-103 | | 1616 | | | 9 | | | | | |
| EB-6 | ASI+ End of day egrop blank | 1700 | ž. | N. V. | | | | | | |
| EB-5 | ASH End of day equip blank EWS End of Day equip blank | 1718 | | | | þ | | | | |
| MW-195 | | 0910 | | | | | | | | |
| MW-19D | | 094 | 7 | P. Ja | | | | | | |
| NW-6 | | 115 | | + | | | | | | |
| Mu-55 | i te | 085 | 3 | | | | | | | |
| MW-015 | , | 1038 | | | | | | | | |
| MU-011) | F 142 | 1/40 | | | | | | | | |
| RW-7 | Ť | 132 | 4) | | | | | | | |
| | | | | | | | | | | |
| | 1 | | | | | | | | | |
| | tody seal on each container?: YE | | | | | | | | | |
| Date/Time | Relinquished By | | | ived By | | | | | | |
| Date 4/75/14 | Name/Title ALEX HAMIIN | | Name/1 | Jim CKAIG | FIL | | | | | |
| Time 1410 | Signature Clarklan | 4 | Signatu | | | | | | | |
| Date | Name/Title | | Name// | VV |) n | Chem | | | | |
| 4-25-18 | Signature Signature | | Signatu | Jeff | Vanh | (Sup | | | | |
| 4-25-18 Time | Signature () | | Signatu | Sell | Ruh | * | | | | |
| Date | Name/Title | 9 | Name/ | Tiple | | | | | | |
| Time | Signature | - | Signature | | | | | | | |
| 7 | | | 2-5-3-4 | | | | | | | |
| Date | Name/Title | | Name/Title | | | | | | | |
| Time | Signature | | Signature | | | | | | | |





| Catalacteristics Total No. of Containers P = Polyethylene/Plastic N = vater S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Sulfur cold to Set Collected N = Archaecteristics N = vater S = Sulfur cold to Set Collected N = Sulfur collected N = | Facility or Project Name | | AFIN # / County | | Sa | mple | | | Para | meters | Requ | ested | | Co | ntainer Ty | pe Code | | Media Code | Preserva | ation Code |
|--|----------------------------|---------|-----------------|----------|--------|---------|-------|-------------|----------|---------------|----------|--------|-------|------------|--|------------|-----------|------------------|---|--------------------|
| Function Code 50014 | | | | | harad | cterist | ics | | Tota | No. of | Cont | ainers | | | | /Plastic | | | 3 50 00 00 000 | |
| MU-175 | | | 75-00049 | 12 | | | | | Ī | . ≩ | | | | | and the same of th | | | - | | |
| MU-175 | Function Code 5 | 0014 | | <u>a</u> | 1 | | | | <u>a</u> | fate | | | | | | | L= | liquid (not wate | C = Nitric | Acid |
| MU-175 | Printed Name of Sampler(s) | | | 1 🖁 | | | l g | | [유 | la se | | | | 0 = Ot | her (Speci | fy) | | | D = NaOl | 1 |
| MU-175 | | | | ह | g g | | 🖺 | | (a) | e ë | | | | | | | | | 100 00000000000000000000000000000000000 | earth and the same |
| MU-175 | 1 | | | 6 | £ | 용 | ë | | | 를 | _ ا | | | | eous = | | | | F = Other | (specify) |
| MU-175 | | I a a | | ₹€ | ig | ŭ | 8 | | Vols | S C e+ r | <u> </u> | | | Flow | Field Mee | | | T T | 1 | Lab# |
| MU-175 | Sample ID | 1 | | <u>명</u> | jë | legi | res | 8 | art emi | itrat | otal | | | DO (mg/L) | | | | | | Lau # |
| RW- | 1. 7. | | | _ | | | _ | 1 | | $\overline{}$ | _ | | - | _ | | | | (da.dddd) | (00.0000) | |
| EB-7 1535 MA | | 1/25/1 | 8 1439 | 1 | 10 | G | 1 | 1 | 17 | 1 | 1 | | | 0.69 | | | 15.51 | | | |
| FB-8 | RW-1 | | 1448 | | | | | | | | | | | 0.70 | 6.70 | 15.6 | 1446 | 1 | | |
| NEELEY | EB-7 | | 1535 | | | | | | | | | | | NA | N/A | NIA | NIA | | | |
| MV-1 & S | EB-8 | | 1930 | | | | | | | | | | | | 1 | | 1 | | | |
| MW-03D O926 O926 O926 O926 O946 O96619 O946 MW-035 O9698 O96619 | NEELEX | 4/26/18 | 1120 | | | | | | | | | | | 0.26 | 6.59 | 14,4 | 1119 | | | |
| MW-03D | MW-185 | | 0 838 | | | | | | | | | | | 0.56 | 6.11 | 14,7 | 0836 | | | |
| MW-035 0948 0.64 6.19 14,4 0846 MW-035 1247 0.68 5.64 16.0 1245 MW-08D 1305 1.77 7.51 16.9 1303 EB-9 1470 MA MA MA MA MA EDW-1 1410 1410 SAMPLE CONDITION UPON RECEIPT IN LAB 1410 1. Containers Correct ✓ Yes No 2. COC & Labels Agree ✓ Yes No 3. Received On Ice ✓ Yes No 4. Temp (°C) Upon Receipt 3.5 °C | MW-18D | | 0925 | | | | | | | | | | | 0.58 | 6.78 | 14,7 | 0973 | | | |
| MW-035 0948 0.64 6.19 14,4 0846 MW-035 1247 0.68 5.64 16.0 1245 MW-08D 1305 1.77 7.51 16.9 1303 EB-9 1470 MA MA MA MA MA EDW-1 1410 1410 SAMPLE CONDITION UPON RECEIPT IN LAB 1410 1. Containers Correct ✓ Yes No 2. COC & Labels Agree ✓ Yes No 3. Received On Ice ✓ Yes No 4. Temp (°C) Upon Receipt 3.5 °C | MW-03D | | 0926 | | | | | | | | | | 2. | 0.36 | 6.77 | 15.4 | 0974 | | | |
| MW - 0 9 S | MW-035 | | 0848 | | | | | | | | | | | 0.96 | | 14,7 | 0846 | | | |
| 1305 1305 1303 1303 1470 1410 | Mw-085 | | 1247 | | | | | | | | | | | 0.68 | 5,64 | 16.0 | 1245 | | | |
| EB -9 1470 1410 1 | MU-08D | | 1305 | | | | | | | | | | | 1,77 | 7.51 | 16.8 | 1303 | 1 | | |
| SAMPLE CONDITION UPON RECEIPT IN LAB SAMPLE CONDITION UPON RECEIPT IN LAB 1. Containers Correct 1. Yes No 2. COC & Labels Agree 1. Yes No 3. Received On Ice 4. Yes No 4. Temp (*C) Upon Receipt 1. Yes No 1. Yes No 2. COC & Labels Agree 3. Soc | | | 1420 | | | | | | | | | | | N/4 | NIA | NIA | NIA | | | |
| SAMPLE CONDITION UPON RECEIPT IN LAB 1. Containers Correct 1. Yes No 2. COC & Labels Agree 1. Yes No 3. Received On Ice 1. Temp (°C) Upon Receipt 2. COC & Labels Agree 3. 5 C | E 13-10 | | 1340 | | | | | | | | | | | | | | 4" | | | |
| 1. Containers Correct | Inw-1 | | 1410 | | | | | | | | | | | 1 | 1 | 1 | 4 | | | |
| 1. Containers Correct | | | | | | | | | | | | | | | | - 1 | | | | |
| 1. Containers Correct | * | | | | | | | | | | | | | | | 74 | | | | |
| 1. Containers Correct | | | | | | | | | | | | | | | | 44 | | | | |
| 2. COC & Labels Agree Yes No Charge time to function code 50014 3. Received On Ice Yes No 4. Temp (*C) Upon Receipt 3.5°C | | | 3 | | | | | 121 77 7127 | | | REN | IARKS | / SAI | MPLE CON | MENTS | | | | | |
| 3. Received On Ice Yes No 4. Temp (*C) Upon Receipt 3.5°C | | | | ianna | Kilbu | irn 68 | 2-084 | 4 or T | yler W | right 6 | 83-006 | 8; AD | EQ La | boratory n | umber 501 | 1-682-0955 | <u>):</u> | | | |
| 4. Temp (*C) Upon Receipt 3.5°C | | | 4 | iictio | 11 000 | 16 300 | 14 | | | | | | | | | | | | | |
| | | | <u> </u> | | | | | | | | | | | | | | | | | |
| FOR COMPLETION BY LAB ONLY | | | 4 | | | | | | | | | | | | | | | | | |
| | FOR COMPLETION BY L | AB ONLY | | | | | | | | | | | | | | | | | | |

| | Arkansas Depa | ARTMENT C | | | ITAL QUALIT | ΓY | | | | |
|---------------------|---------------------------|-----------|---------|-----------------------|-------------|---------------------|------------|--|--|--|
| Date 4/76/14 | | Sampler | (print) | ALEX | HAMUEN. | ELIZABETH | STUDEBAKER | | | |
| Site Identification | Old Midland Pro | ducts; A | | | | | | | | |
| Site Address | Hwy 10 Ola, AR | 72853 | | | | | | | | |
| Sample ID | Sample Remarks | | Time (| nhmm) | Latitude | Longitude | Lab.ID | | | |
| MW-179 | | | 1439 | | | | 1 | | | |
| RW-1 | High result A | | 14 | G | | *. | . , | | | |
| EB-7 | | | 1539 | 5 | | | | | | |
| EB-8 | | | 1530 | | | | | | | |
| NEELEY | | | 1170 |) | * | | | | | |
| MW-185 | | | ዐዌን | в | | | | | | |
| MW-18D | | | 092 | | | | | | | |
| MW-03D | | | 09 | 26 | | | | | | |
| MW-035 | | | 0849 | 8 | | | | | | |
| Mw-085 | | | 124 | 7 | | | | | | |
| MW-08D | | | 1309 | _ | 7 1 | | | | | |
| EB-9 | EWS END of DAY BLANT | | 147 | e) | | | | | | |
| EB-10 | EWS END OF DAY BLANK |) K | 1340 |) | | | | | | |
| Inw-1 | | | 1416 | ין | | | | | | |
| | | | | | | | | | | |
| | tody seal on each contai | ner?: YES | s (40) | _ | els/COC agi | ree?: (YE) 1 | 40 | | | |
| Date/Time | Relinquished By | | | Name/ | eived By | | | | | |
| 4/26/18 | 1 14 2 | | | | Jim CRAC | 1 Fin | | | | |
| Time | ALEX HAMILIN Signature | | | Signatu | 7 // |) | | | | |
| [43] | Name/Title | | | Name | two (| | | | | |
| 4/26/18 | | 70 | | | | Rowhouser | | | | |
| Time | Signature | | | Signature A Rawhouser | | | | | | |
| 1614 Date | Name/Title | | | Name/ | Title Title | | | | | |
| | 0 | | | | | | | | | |
| Time | Signature | | | Signatu | ire | | | | | |
| Date | Name/Title | | | Name/Title | | | | | | |
| Time | , Signature | | | Signature // | | | | | | |

Legal COC Form Revision 001 Effective Date: 04/16/2018



Laboratory Data Reports



5301 Northshore Drive North Little Rock, AR 72118 Telephone: 501-682-0744

Client Report For:

Old Midland 2018 1700-1798

Attention:

Client Address:

Report Date:

June 27, 2018

LAB ID:

AR17APR25-04

Jeff Ruch

Comment:

MW-1S, MW-1D, MW-03S, MW-03D, MW-5S, MW-8S, MW-8D, MW-10S, MW-10D, MW-12S, MW-16S, MW-16D, MW-17S, MW-18S, MW-18D, MW-19S, MW-19D, MW-20S, MW-20D, MW-21S, MW-21D, MW-22S, MW-22D, MW-23, RW-1, RW-6, RW-7, EB-1, EB-2, EB-3, EB-4, EB-5, EB-6, EB-7, EB-8, EB-9, EB-10, MW-12S dup, MW-21S dup, MW-

23 dup

Approved By:_

Date: July 30, 2018



Lab Contact Info:

ADEQ Laboratory and Monitoring Services

№ 5301 Northshore Drive, North Little Rock, AR 72118

www.adeq.state.ar.us

Lessie Redican

Redican@adeq.state.ar.us

501-682-0937

Collector: Associates, FTN Project: Old Midland

Project Description: Old Midland 2018 1700-1713

Date and Time Received: 04/24/2018 15:48 **Work Order Number: WO-180424-01**

Case Narrative:

The following parameters were analyzed in the field upon collection by FTN Associates personnel:

рп

Specific Conductance

Turbidity

Water Temperature Dissolved Oxygen Ferrous Iron

Sample Receipt Conditions:

| Condition | Response | Comment |
|--------------------------------|----------|---------|
| Is the COC completed properly? | Yes | |
| Temperature on Receipt | 1.9°C | |
| Received on Ice | Yes | |
| Containers are Correct | Yes | |
| Custody Seals | Yes | |
| COC/Labels Agree | Yes | |

Data Qualifiers

| Qualifier Flag | Description |
|----------------|---|
| R | RPD value does not meet lab acceptance criteria |



Page 2 of 36

Laboratory Name: ADEQ Laboratory and Monitoring Services Email: Kilburn@adeq.state.ar.us

Contact Name: Kilburn, Dianna Phone: 501-682-0844

Lab Address: 5301 Northshore Drive North Little Rock, AR 72118 Fax:

Collector: Associates, FTN Site: EB-2 Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 13:34

Sample Barcode: Sample Number: 2018-1700

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1700-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity <6.00 mg/L 6 1 4/25/2018 13:08

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1700-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) <0.500 Chloride mg/L 0.5 4/25/2018 17:52 Sulfate < 0.500 mg/L 0.5 1 4/25/2018 17:52

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1700-3-1 Batch Number: AB-180430-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 <5.00</td>
 ug/L
 5
 1
 4/30/2018
 12:43

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1700-1-3 Batch Number: AB-180424-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Nitrite+Nitrate as Nitrogen <0.0500 mg/L 0.05 1 4/25/2018 9:51

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1700-2-1 Batch Number: AB-180425-015

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time
Total Organic Carbon

7.1.00
Reporting
Q
Limit
Dilution
Date and Time
1 1 4/25/2018 14:28



Collector: Associates, FTN Site: MW-23 Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 16:05

Sample Barcode: Sample Number: 2018-1701

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1701-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 183 mg/L 6 1 4/25/2018 13:09

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1701-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Analyte(s) Result Units Q Limit **Dilution Date and Time** Sulfate 140 2.5 5 4/27/2018 9:26 mg/L 85.1 1 Chloride 0.5 4/25/2018 18:00 mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1701-1-4 Batch Number: AB-180501-006

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.710 mg/L 1 4/23/2018 16:01

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1701-1-9 Batch Number: AB-180503-015

Analyte(s) Result Units Q Limit Dilution Date and Time

Iron (Ferrous) 2.0 mg/L 0.5 1 4/23/2018 16:01

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1701-3-1 Batch Number: AB-180430-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 2070
 ug/L
 5
 1
 4/30/2018
 12:49



Collector: Associates, FTN Site: MW-23 Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 16:05

Sample Barcode: Sample Number: 2018-1701

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1701-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/25/2018
9:52

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1701-1-5 Batch Number: AB-180501-007

Analyte(s) Result Units Q Limit Dilution Date and Time
pH 6.93 units 1 4/23/2018 16:01

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1701-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 873 uS/cm 1 1 4/23/2018 16:01

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1701-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 17.9 °C 1 4/23/2018 16:01

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1701-2-1 Batch Number: AB-180425-015

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time

Total Organic Carbon
2.05
mg/L
R
1
1
4/25/2018
14:45

This analytical report must be reproduced in its entirety



Collector: Associates, FTN Site: MW-23 Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 16:05

Sample Barcode: Sample Number: 2018-1701

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1701-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 3.06 NTU 1 4/23/2018 16:01



Collector: Associates, FTN Site: EB-1 Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 13:35

Sample Barcode: Sample Number: 2018-1702

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1702-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity <6.00 mg/L 6 1 4/25/2018 13:11

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1702-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Units Q Limit **Dilution Date and Time** Analyte(s) Result Chloride < 0.500 0.5 4/25/2018 18:15 mg/L 1 < 0.500 0.5 4/25/2018 18:15 Sulfate mg/L

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1702-3-1 Batch Number: AB-180430-001

Analyte(s) Result Units Q Limit Dilution Date and Time

Iron <5.00 ug/L 5 1 4/30/2018 13:00

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1702-1-3 Batch Number: AB-180424-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Nitrite+Nitrate as Nitrogen <0.0500 mg/L 0.05 1 4/25/2018 9:55

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1702-2-1 Batch Number: AB-180425-015

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

7 total Organic Carbon

Nesult
Units
Q
Limit
Dilution
Date and Time
1 1 4/25/2018 15:23



Collector: Associates, FTN Site: MW-21S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 15:48

Sample Barcode: Sample Number: 2018-1703

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1703-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 125 mg/L 6 1 4/25/2018 13:12

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1703-1-2 Batch Number: AB-180425-026

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | 48.9 | mg/L | | 0.5 | 1 | 4/25/2018 18:22 |
| Chloride | 140 | mg/L | | 2.5 | 5 | 4/27/2018 9:41 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1703-1-4 Batch Number: AB-180501-006

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.330 | mg/L | | | 1 | 4/23/2018 15:46 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1703-1-9 Batch Number: AB-180503-015

| | | | | Reporting | | Analysis |
|----------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | 0.5 | mg/L | | 0.5 | 1 | 4/23/2018 15:46 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1703-3-1 Batch Number: AB-180430-001

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 1030 ug/L 5 1 4/30/2018 13:06



Collector: Associates, FTN Site: MW-21S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland
Matrix: Water Collected: 4/23/2018 15:48

Sample Barcode: Sample Number: 2018-1703

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1703-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Analysis
Analyte(s)

Nitrite+Nitrate as Nitrogen

mg/L
0.05
1
4/25/2018
9:56

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1703-1-5 Batch Number: AB-180501-007

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.05
 units
 1
 4/23/2018
 15:46

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1703-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 669 uS/cm 1 1 4/23/2018 15:46

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1703-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 16.5 °C 1 4/23/2018 15:46

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1703-2-1 Batch Number: AB-180425-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/25/2018 15:42



Collector: Associates, FTN Site: MW-21S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 15:48

Sample Barcode: Sample Number: 2018-1703

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1703-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 20.7 NTU 1 4/23/2018 15:46



Collector: Associates, FTN Site: MW-21D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 16:38

Sample Barcode: Sample Number: 2018-1704

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1704-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 173 mg/L 6 1 4/25/2018 13:16

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1704-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride 83.0 0.5 4/25/2018 18:37 mg/L 1 < 0.500 0.5 1 4/25/2018 18:37 Sulfate mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1704-1-4 Batch Number: AB-180501-006

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.460 mg/L 1 4/23/2018 16:36

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1704-1-9 Batch Number: AB-180503-015

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 1.0
 mg/L
 0.5
 1
 4/23/2018
 16:36

ICP/MS Metals (Dissolved) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1704-5-1 Batch Number: AB-180425-018

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 893
 ug/L
 5
 1
 4/25/2018
 14:05



Collector: Associates, FTN Site: MW-21D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland
Matrix: Water Collected: 4/23/2018 16:38

Sample Barcode: Sample Number: 2018-1704

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1704-1-3 Batch Number: AB-180424-010

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1704-1-5 Batch Number: AB-180501-007

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.89
 units
 1
 4/23/2018
 16:36

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1704-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 509 uS/cm 1 1 4/23/2018 16:36

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1704-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 16.6 °C 1 4/23/2018 16:36

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1704-2-1 Batch Number: AB-180425-015

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

1 1 4/25/2018 16:18



Collector: Associates, FTN Site: MW-21D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 16:38

Sample Barcode: Sample Number: 2018-1704

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1704-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 37.3 NTU 1 4/23/2018 16:36



Collector: Associates, FTN Site: EB-3 Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/23/2018 17:35

Sample Barcode: Sample Number: 2018-1705

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1705-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity <6.00 mg/L 6 1 4/25/2018 13:17

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1705-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Units Q Limit **Dilution Date and Time** Analyte(s) Result Chloride < 0.500 0.5 4/25/2018 18:44 mg/L 1 < 0.500 0.5 4/25/2018 18:44 Sulfate mg/L

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1705-3-1 Batch Number: AB-180430-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 <5.00</td>
 ug/L
 5
 1
 4/30/2018
 13:18

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1705-1-3 Batch Number: AB-180424-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Nitrite+Nitrate as Nitrogen <0.0500 mg/L 0.05 1 4/25/2018 10:00

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1705-2-1 Batch Number: AB-180425-015

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

1 1 4/25/2018 16:36



Collector: Associates, FTN Site: EB-4 Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 7:15

Sample Barcode: Sample Number: 2018-1706

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1706-1-1 Batch Number: AB-180424-011

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | <6.00 | mg/L | | 6 | 1 | 4/25/2018 13:18 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1706-1-2 Batch Number: AB-180425-026

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | <0.500 | mg/L | | 0.5 | 1 | 4/25/2018 18:51 |
| Sulfate | <0.500 | mg/L | | 0.5 | 1 | 4/25/2018 18:51 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1706-3-1 Batch Number: AB-180430-001

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | <5.00 | ug/L | | 5 | 1 | 4/30/2018 13:24 |

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1706-1-3 Batch Number: AB-180424-010

| | | | | Reporting | Analysis | |
|-----------------------------|---------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Nitrite+Nitrate as Nitrogen | <0.0500 | mg/L | | 0.05 | 1 | 4/25/2018 10:01 |

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1706-2-1 Batch Number: AB-180425-015

| | | | | | Reporting | | |
|----------------------|--------|-------|---|-------|-----------|-----------------|--|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time | |
| Total Organic Carbon | <1.00 | mg/L | | 1 | 1 | 4/25/2018 16:55 | |



Collector: Associates, FTN Site: MW-16S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:22

Sample Barcode: Sample Number: 2018-1707

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1707-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 139 mg/L 6 1 4/25/2018 13:19

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1707-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Analyte(s) Result **Units** Q Limit **Dilution Date and Time** 163 5 4/27/2018 9:55 Sulfate mg/L 2.5 1 Chloride 98.3 0.5 4/25/2018 19:13 mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1707-1-4 Batch Number: AB-180501-006

Analyte(s) Result Units Q Limit Dilution Date and Time
Dissolved Oxygen 0.810 mg/L 1 4/24/2018 9:19

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1707-1-9 Batch Number: AB-180503-015

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 < 0.5</td>
 mg/L
 0.5
 1
 4/24/2018
 9:19

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1707-3-1 Batch Number: AB-180430-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 399
 ug/L
 5
 1
 4/30/2018
 13:29



Collector: Associates, FTN Site: MW-16S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:22

Sample Barcode: Sample Number: 2018-1707

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1707-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.0647
mg/L
0.05
1
4/25/2018
10:02

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1707-1-5 Batch Number: AB-180501-007

Analyte(s) Result Units Q Limit Dilution Date and Time

PH 6.62 units 1 4/24/2018 9:19

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1707-1-8 Batch Number: AB-180501-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time
Units
Specific Conductance
917
US/cm
1
1
4/24/2018
9:19

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1707-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 17.1 °C 1 4/24/2018 9:19

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1707-2-1 Batch Number: AB-180425-015

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time

1 1 4/25/2018 17:51

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Collector: Associates, FTN Site: MW-16S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:22

Sample Barcode: Sample Number: 2018-1707

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1707-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 8.67 NTU 1 4/24/2018 9:19



Collector: Associates, FTN Site: MW-16D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:48

Sample Barcode: Sample Number: 2018-1708

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1708-1-1 Batch Number: AB-180424-011

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 111 | mg/L | | 6 | 1 | 4/25/2018 13:20 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1708-1-2 Batch Number: AB-180425-026

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | 62.5 | mg/L | | 0.5 | 1 | 4/25/2018 19:21 |
| Sulfate | 102 | mg/L | | 2.5 | 5 | 4/27/2018 10:03 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1708-1-4 Batch Number: AB-180501-006

| | | | | Reporting | | Anaiysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.790 | mg/L | | | 1 | 4/24/2018 9:45 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1708-1-9 Batch Number: AB-180503-015

| | | | | Reporting | | Analysis |
|----------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | < 0.5 | mg/L | | 0.5 | 1 | 4/24/2018 9:45 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1708-3-1 Batch Number: AB-180430-001

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 2420 | ug/L | | 5 | 1 | 4/30/2018 13:47 |



Collector: Associates, FTN Site: MW-16D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland
Matrix: Water Collected: 4/24/2018 9:48

Sample Barcode: Sample Number: 2018-1708

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1708-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L

0.05
1
4/25/2018
10:06

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1708-1-5 Batch Number: AB-180501-007

Analyte(s) Result Units Q Limit Dilution Date and Time

PH 7.33 units 1 4/24/2018 9:45

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1708-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 596 uS/cm 1 1 4/24/2018 9:45

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1708-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 18.5 °C 1 4/24/2018 9:45

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1708-2-1 Batch Number: AB-180425-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon 15.8 mg/L 1 1 4/25/2018 18:10



Collector: Associates, FTN Site: MW-16D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:48

Sample Barcode: Sample Number: 2018-1708

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1708-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 16.1 NTU 1 4/24/2018 9:45



Collector: Associates, FTN Site: MW-12S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:08

Sample Barcode: Sample Number: 2018-1709

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1709-1-1 Batch Number: AB-180424-011

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 41.8 | mg/L | | 6 | 1 | 4/25/2018 13:21 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1709-1-2 Batch Number: AB-180425-026

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | 1.08 | mg/L | | 0.5 | 1 | 4/25/2018 19:28 |
| Chloride | 8.70 | mg/L | | 0.5 | 1 | 4/25/2018 19:28 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1709-1-4 Batch Number: AB-180501-006

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.500 | mg/L | | | 1 | 4/24/2018 9:06 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1709-1-9 Batch Number: AB-180503-015

| | | | | Reporting | | Analysis |
|----------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | <0.5 | mg/L | | 0.5 | | 4/24/2018 9:06 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1709-3-1 Batch Number: AB-180430-001

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 676 | ug/L | R | 5 | 1 | 4/30/2018 13:53 |



Collector: Associates, FTN Site: MW-12S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:08

Sample Barcode: Sample Number: 2018-1709

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1709-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.0873
mg/L
0.05
1
4/25/2018
10:07

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1709-1-5 Batch Number: AB-180501-007

Analyte(s) Result Units Q Limit Dilution Date and Time
pH 5.55 units 1 4/24/2018 9:06

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1709-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 94.6 uS/cm 1 1 4/24/2018 9:06

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1709-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 15.4 °C 1 4/24/2018 9:06

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1709-2-1 Batch Number: AB-180425-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/25/2018 18:28

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Collector: Associates, FTN Site: MW-12S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 9:08

Sample Barcode: Sample Number: 2018-1709

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1709-1-7 Batch Number: AB-180501-011

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Turbidity
 2.57
 NTU
 1
 4/24/2018
 9:06



Analyst: KH

Collector: Associates, FTN Site: MW-22D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:15

Sample Barcode: Sample Number: 2018-1710

Aliquot #: 2018-1710-1-1 Batch Number: AB-180424-011

Alkalinity as CaCO3

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 151 mg/L 6 1 4/25/2018 13:23

Method: EPA 310.2 (Rev. 1974)

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1710-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride 115 2.5 5 4/27/2018 10:10 mg/L 44.8 0.5 1 4/25/2018 19:43 Sulfate mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1710-1-4 Batch Number: AB-180501-006

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 1.66 mg/L 1 4/24/2018 12:12

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1710-1-9 Batch Number: AB-180503-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) <0.5 mg/L 0.5 1 4/24/2018 12:12

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1710-3-1 Batch Number: AB-180430-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 516
 ug/L
 5
 1
 4/30/2018
 14:04



Collector: Associates, FTN Site: MW-22D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:15

Sample Barcode: Sample Number: 2018-1710

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1710-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.127
mg/L
0.05
1
4/25/2018 10:09

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1710-1-5 Batch Number: AB-180501-007

Analyte(s) Result Units Q Limit Dilution Date and Time

PH 6.86 units 1 4/24/2018 12:12

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1710-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 723 uS/cm 1 1 4/24/2018 12:12

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1710-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 22.7 °C 1 4/24/2018 12:12

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1710-2-1 Batch Number: AB-180425-015

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time

1 1 4/25/2018 19:04

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Collector: Associates, FTN Site: MW-22D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:15

Sample Barcode: Sample Number: 2018-1710

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1710-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 9.78 NTU 1 4/24/2018 12:12



Collector: Associates, FTN Site: MW-22S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:50

Sample Barcode: Sample Number: 2018-1711

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1711-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 129 mg/L 6 1 4/25/2018 13:24

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1711-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Sulfate 809 5 4/27/2018 10:17 mg/L 10 5 258 10 4/27/2018 10:17 Chloride mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1711-1-4 Batch Number: AB-180501-006

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.480 mg/L 1 4/24/2018 12:46

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1711-1-9 Batch Number: AB-180503-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) NA mg/L 0.5 1 4/24/2018 12:46

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1711-3-1 Batch Number: AB-180430-001

Analyte(s) Result Units Q Limit Dilution Date and Time

Iron 67.2 ug/L 5 1 4/30/2018 14:10



Collector: Associates, FTN Site: MW-22S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:50 Sample Barcode: Sample Number: 2018-1711

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1711-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/25/2018
10:10

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1711-1-5 Batch Number: AB-180501-007

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.10
 units
 1
 4/24/2018
 12:46

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1711-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 2260 uS/cm 1 1 4/24/2018 12:46

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1711-1-6 Batch Number: AB-180501-009

Analyte(s)ResultUnitsQLimitDilutionDate and TimeWater Temperature18.4°C14/24/201812:46

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1711-2-1 Batch Number: AB-180425-015

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time

Total Organic Carbon
2.49
mg/L
1
1
4/25/2018
19:24

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Collector: Associates, FTN Site: MW-22S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland
Matrix: Water Collected: 4/24/2018 12:50

Sample Barcode: Sample Number: 2018-1711

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1711-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 12.1 NTU 1 4/24/2018 12:46



Page 30 of 36

Collector: Associates, FTN Site: MW-9S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 11:35

Sample Barcode: Sample Number: 2018-1712

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1712-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 134 mg/L 6 1 4/25/2018 13:27

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1712-1-2 Batch Number: AB-180425-026

Reporting **Analysis** Limit Result **Units** Q **Dilution Date and Time** Analyte(s) Chloride 146 2.5 5 4/27/2018 10:25 mg/L Sulfate 109 2.5 5 4/27/2018 10:25 mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1712-1-4 Batch Number: AB-180501-006

Analyte(s) Result Units Q Limit Dilution Date and Time
Dissolved Oxygen 2.20 mg/L 1 4/24/2018 11:34

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1712-1-9 Batch Number: AB-180503-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) < 0 .5 mg/L 0.5 1 4/24/2018 11:34

ICP/MS Metals (Dissolved) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1712-5-1 Batch Number: AB-180425-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 129 ug/L 5 1 4/25/2018 14:11



Collector: Associates, FTN Site: MW-9S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 11:35

Sample Barcode: Sample Number: 2018-1712

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1712-1-3 Batch Number: AB-180424-010

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/25/2018
10:11

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1712-1-5 Batch Number: AB-180501-007

Analyte(s) Result Units Q Limit Dilution Date and Time

PH 6.15 units 1 4/24/2018 11:34

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1712-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 825 uS/cm 1 1 4/24/2018 11:34

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1712-1-6 Batch Number: AB-180501-009

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

25.1
°C
1
4/24/2018 11:34

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1712-2-1 Batch Number: AB-180425-015

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time

1 1 4/25/2018 19:41

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Collector: Associates, FTN Site: MW-9S Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 11:35

Sample Barcode: Sample Number: 2018-1712

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1712-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 38.9 NTU 1 4/24/2018 11:34



Collector: Associates, FTN Site: MW-9D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:20

Sample Barcode: Sample Number: 2018-1713

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1713-1-1 Batch Number: AB-180424-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 183 mg/L 6 1 4/25/2018 13:28

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1713-1-2 Batch Number: AB-180425-026

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | 139 | mg/L | | 2.5 | 5 | 4/27/2018 10:32 |
| Sulfate | 2.40 | mg/L | | 0.5 | 1 | 4/25/2018 20:05 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1713-1-4 Batch Number: AB-180501-006

Analyte(s) Result Units Q Limit Dilution Date and Time

1.11 mg/L 1 4/24/2018 12:18

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1713-1-9 Batch Number: AB-180503-015

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 1.5
 mg/L
 0.5
 1
 4/24/2018
 12:18

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1713-3-1 Batch Number: AB-180430-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 2480
 ug/L
 5
 1
 4/30/2018
 14:16



Collector: Associates, FTN Site: MW-9D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:20 Sample Barcode: Sample Number: 2018-1713

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1713-1-3 Batch Number: AB-180424-010

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1713-1-5 Batch Number: AB-180501-007

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.58
 units
 1
 4/24/2018
 12:18

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1713-1-8 Batch Number: AB-180501-010

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 670 uS/cm 1 1 4/24/2018 12:18

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1713-1-6 Batch Number: AB-180501-009

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 23.3 °C 1 4/24/2018 12:18

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1713-2-1 Batch Number: AB-180425-015

Analyte(s) Result Units Q Limit Dilution Date and Time

Total Organic Carbon <1.00 mg/L 1 1 4/25/2018 20:00

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Collector: Associates, FTN Site: MW-9D Work Order Number: WO-180424-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 12:20

Sample Barcode: Sample Number: 2018-1713

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1713-1-7 Batch Number: AB-180501-011

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 6.28 NTU 1 4/24/2018 12:18

QUALITY CONTROL REPORT

Project: Old Midland 2018 1700-1713

Date and Time Received: 04/24/2018 15:48

| Analyte | Units | Method Blank | Reporting Limit | % Recovery LCS/LCSD | Limits | % RPD Lab Dup Result | Limits | % Recove | | % RPD | Limits | Qualifiers |
|-----------------------------|-------|-----------------|---------------------|------------------------|----------|---------------------------|--------|----------------|---------------------|-------|--------|------------|
| Nitrate +Nitrite as N | | SM 45 | 00-NO3 F, 2 | 2011 | Batch #: | AB-180424-010 | | Parent San | nple: 2018-1709 | | | |
| Nitrite+Nitrate as Nitrogen | mg/L | <0.0500 | 0.05 | 99.3 / | 80-120 | 1 | - | N/A 98.4 / 95 | .1 80-120 | 2.9 | - | |
| Alkalinity as CaCO3 | | EPA 3 | 10.2 (Rev. 1 | 974) | Batch #: | AB-180424-011 | | Parent San | nple: 2018-1693 | | | |
| Alkalinity | mg/L | <6.00 | 6.00 | 104.8 / | 90-110 | I | - | 87.1 / 89 | 0.8 80 -120 | 2.51 | - | |
| Total Organic Carbon | | SM 53 | 10 C, 2011 | | Batch #: | AB-180425-015 | | Parent San | nple: 2018-1709 | | | |
| Total Organic Carbon | mg/L | <1.00 | 1.00 | 103.0 / | 85-115 | 1 | - | N/A 103.8 / 10 | 2.0 80-120 | 1.0 | - | |
| ICP/MS Metals (Dissolv | /ed) | EPA 2 1994) | 00.8 (Rev. 5 | 5.4, | Batch #: | AB-180425-018 | | Parent San | 2018-1724 nple: | | - | |
| Iron | ug/L | <5.00 | 5.00 | 99.8 / | 85-115 | 1 | | 101 | .1 / 101.2 70-13 | 30 0 | .2 | |
| Anions | | EPA 30 1993) | 00.0 (Rev.2.1 | 1, | Batch #: | AB-180425-026 | | Parent Sam | 2018-1709 ple: | | | |
| Chloride | mg/L | <0.500 | 0.50 | 102.5 / | 90-110 | I | | <u> </u> 1 | 01.2 / 101.2 80- | -120 | 0.0 | - |
| Sulfate | mg/L | <0.500 | 0.50 | 102.7 / | 90-110 | ĺ | | 1 | 00.3 / 100.4 80- | -120 | 0.1 | 1 |
| | | | | | | | | | | | - | |
| ICP/MS Metals (Tota | al) | EP/ 199 | A 200.8 (Rev 14) | v. 5.4, | Batch | AB-180430-00 #: | 1 | Parent S | 2018-170 Sample: | 9 | | |
| Iron | ug/L | <5.00 | 5.00 | 91.5 / | 85-115 | I | - | 99.7 / 97.3 | 70-130 | 2.4 | | |

FIELD QUALITY CONTROL REPORT

Work Order # WO-180424-01

Parent Sample 2018-1701

| Analyte(s) | Parent Sample Result | Field Dup Result | Units | % RPD | Limits | Batch Number |
|-----------------------------|-------------------------|---------------------|-------|---------|--------|---------------|
| Alkalinity | 183 | 162 | mg/L | 12.17 | 0 - 20 | AB-180424-011 |
| Alkalinity | 125 | 123 | mg/L | 1.61 | 0 - 20 | AB-180424-011 |
| Alkalinity | 41.8 | 40.9 | mg/L | 2.18 | 0 - 20 | AB-180424-011 |
| Chloride | 85.1 | 87.4 | mg/L | 2.66 | 0 - 20 | AB-180425-026 |
| Sulfate | 140 | 142 | mg/L | 1.60 | 0 - 20 | AB-180425-026 |
| Chloride | 140 | 140 | mg/L | 0.07 | 0 - 20 | AB-180425-026 |
| Sulfate | 48.9 | 49.0 | mg/L | 0.31 | 0 - 20 | AB-180425-026 |
| Chloride | 8.70 | 8.94 | mg/L | 2.76 | 0 - 20 | AB-180425-026 |
| Sulfate | 1.08 | 1.09 | mg/L | 0.38 | 0 - 20 | AB-180425-026 |
| Nitrite+Nitrate as Nitrogen | <0.0500 | <0.0500 | mg/L | NA | 0 - 20 | AB-180424-010 |
| Nitrite+Nitrate as Nitrogen | <0.0500 | <0.0500 | mg/L | NA | 0 - 20 | AB-180424-010 |
| Nitrite+Nitrate as Nitrogen | 0.0873 | 0.0871 | mg/L | 0.23 | 0 - 20 | AB-180424-010 |
| Total Organic Carbon | 2.05 | 4.46 | mg/L | 74.04 R | 0 - 20 | AB-180425-015 |
| Total Organic Carbon | <1.00 | <1.00 | mg/L | NA | 0 - 20 | AB-180425-015 |
| Total Organic Carbon | <1.00 | <1.00 | mg/L | NA | 0 - 20 | AB-180425-015 |
| Iron (Total) | 2070 | 1950 | ug/L | 5.97 | 0 - 20 | AB-180430-001 |
| Iron (Total) | 1030 | 973 | ug/L | 5.69 | 0 - 20 | AB-180430-001 |
| Iron (Total) | 676 | 617 | ug/L | 9.13 | 0 - 20 | AB-180430-001 |



Arkansas Department . Environmental Quality \\ \(\psi \) \(\lambda \) | \(\



| Facility or Project Name | 1 2 | | AFIN # / County | , | Sa | mple | | | Para | meters | Requ | ested | | Co | ontainer Ty | pe Code | | Media Code | Preserv | vation Code |
|----------------------------|----------|----------|-----------------------|------------------|----------------|--------|--------------|--------|-------------------------------------|---|------------|----------|-------|------------|-------------|------------|-----------|-------------------|----------------|--------------|
| Old Midland Products | | /IP) | 5 | ۸ (| | cteris | | | Total | No. o | f Cont | ainers | | P = P | olyethylene | e/Plastic | W= | - water | A = Cool | to ≤ 6°C |
| Ola, Arkansa | | | 75-00049 | 3 | | | | | I, | . <u>A</u> | | | | G = G | 7.0 | | | groundwater | B = Sulfu | uric Acid |
| Function Code 5 | 0014 | | | ite (| 1 | | | | A | ate | | _ | | A = A | mber Glass | S | L = | liquid (not water | er) C = Nitrio | c Acid |
| Printed Name of Sampler(s) | | | | sod | | | l e | | 유 - | sulfate, , alkalinity | | Iran | | 0 = 0 | ther (Spec | ify) | S = | soil or solid | D = NaO | Н |
| | | | | or Composite (2) | Be | | Туре | | 9 | de, | | | | | | | E= | edible tissue | E = Sodium | Thiosulfate |
| | | | | or O | Ę | Code | tion | | tiles | olori itrit | _ | 3 | | Instantan | eous = | | | whole fish | F = Othe | er (specify) |
| | | | * | Ξ | Container Type | ပြို | Preservation | | Semivolatiles (PCP, PAH, Carbazole) | Anions chloride, s nitrate+ nitrite-N, | Total Iron | Dissolue | | Flow | | | | other | | 1 |
| Sample ID | | ollected | Time Collected | Grab | outs | Media | ese | T0C | arb | nion | otal | 3 | | | | surements | | Latitude | Longitude | 1 1 |
| - Store | (mm/ | dd/yy) | (hh:mm) | | | | | | | | Ĕ | 12 | - | DO (mg/L) | pH (SU) | Temp (*C) | Time | (dd.ddddd) | (dd.ddddd) | |
| EB-2 | 4/2 | 3/18 | 1334 | 1 | 0 | G | F | 1 | 1 | 1 | 1 | | | NJA | NA | MA | 1334 | | | 2013-1700 |
| MW-23 | | | 1605 | 1 | 1 | | | 1 | 1 | 1 | V | | | 0.71 | 6.93 | 17.9 | 1605 | | | 1701 |
| Dup-MW-23 | * | | 1705 | | | | 1 | 3 | 2 | 1 | 1 | | | V. | 1 | 1 | L | 1 | | 17010 |
| E13-1 | 2 | | 1335 | | | | | 1 | 1 | 1 | 1 | | | NIA | NIA | NIA | MA | | | 1102 |
| MW-215 | | | 1548 | - | | | | 1 | i | L | i | | | 0.33 | 6.05 | 16.5 | 1548 | , | | 1703 |
| Dup-MW-ZIS | | | 1610 | | П | | | 3 | 2 | 1 | 1 | | | 1 | 1 | 1 | 1 | | | 17030 |
| MW-210 | | | 1638 | | П | | | 1 | 1 | 1 | Ø | 1 | | 0,46 | 6.39 | 16.6 | 1636 | | | 1704 |
| EB-3 | J | , | 1735 | | | | | 1 | I | | 1 | | | MA | NIA | N/A | MA | | | 1105 |
| EB-4 | 4-20 | 1-18 | 0715 | | | | | | | | | | | 1 | 1 | 1 | 1 | | | 1706 |
| MW-165 | i | | 0922 | | П | | | | | | | | | 0.81 | 6.62 | 17,1 | 0919 | | | 1107 |
| MW-161) | | | 0948 | | П | | | | | | | | | 0,79 | 7.33 | 1815 | 0945 | | | 1708 |
| MW-125 | | , | 0908 | | П | | | J | J | J | 1 | | | 0,50 | 5,59 | 15.4 | 0906 | | | 1709 |
| Dup-MW-125 | | | 0978 | | | | | 3 | 2 | 1 | 1 | | | 1 | 1 | 1 | 1 | | | 1709 D |
| MW-22D | | | 1215 | | | | | 1 | 1 | 1 | 1 | | | 1,66 | 6.86 | 22.7 | 1212 | | | 1710 |
| MW-22S | 1 | | 1250 | | 1,1 | | 1 | 1 | 1 | 1 | 1 | | | 0.48 | | 18,4 | 1246 | | | 1711 |
| | | | | | | | | | | | | | | | | | | | | Part and |
| | | | | | | | | | | | | | | | | | -3 | | | |
| SAMPLE CONDITION UPON R | ECEIPT I | | | | | | | | | | | | | IPLE CON | | - | | | | |
| | Yes | _ No R | Report results to Dia | anna | Kilbu | rn 68 | 2-084 | 4 or T | yler Wi | ight 68 | 33-006 | 8; ADI | EQ La | boratory n | umber 501 | 1-682-0955 | <u>i:</u> | / | | |
| 2. COC & Labels Agree | Yes | | harge time to fun | ctio | 1 COC | e 500 | <u>)14</u> | | | | | | | | | | | (| -(1) | |
| | Yes_ | No | | | | | | | | | | | | | | | | \ | (8) | |
| 4. Temp (°C) Upon Receipt | 1.90 | | | | | | | | | | * | | | | | | | | | |
| FOR COMPLETION BY L | AB ONLY | ' | | | | | | | | | | | | | | | | | | |

| | Arkansas Depa | | OF ENVIRO F-CUSTO | | TAL QUALIT | Y | |
|---------------------|-----------------------------|-----------|----------------------|---------------|-------------|------------|----------------|
| Date | 4/24/18 | Sampler | (print) | Αl | EX HAM | LIN ELIZA | SETH STUDEBAKE |
| Site Identification | Old Midland Pro | ducts; A | FIN 7 | | | | |
| Site Address | Hwy 10 Ola, AR | 72853 | | | | | |
| Sample ID | Sample Remarks | | Time (hl | hmm) | Latitude | Longitude | Lab ID |
| EB-2 | Post WL-Blush ASIA | | 1334 |) | | 2 | 9 3-3 |
| MW-23 | | | 1609 | | | | - 4, |
| D4P-MW-23 | nuplrah of MW-23 | | 1705 | | | | |
| EB-1 | Post he Blank to | ~3 | 1335 | _ | | | |
| MW-215 | 1 1 1 | ¥ | 1548 | 5 | | | |
| DUP_MW-215 | Ruplient of Mw- | | 1010 | | | | |
| MW-21D | Field filteral me | tals | 1638 | | | | |
| EB-3 | env of day blank E | 45 | 1735 | | | | |
| EB-4 | end of day blank | ASIL | 0715 | | | | 7 |
| MW-165 | | | 0922 | ? | | | |
| MW-16D | y . | *** | 0948 | ' | | | |
| . Mw-175 | | | 0908 | | | | |
| D48-MW-125 | | | 0979 | 3 | | | |
| MW-27D | 1 | . v. | 0 1715 | | | | |
| MW-275 | | | 1250 | | | | |
| | tody seal on each contai | ner?: YE | s NO | | els/COC agr | ee?: YES N | 10 |
| Date/Time | Relinquished By Name/Title | | | Rece Name/ | ived By | | |
| Date 4 24 2018 | Eurabeth Stud | ebaker, (| Geologist | | Jim Crac | g FIN | |
| Time 14 05 | Signature Stratile Versiles | ah | | Signatu | ire A | 0 | |
| Date | Nande/Title | | | Name/7 | Title 1 | (0) | - Chem Sup |
| 4-24-2018 | - 111/ Cici . 1 | TU | | g: . | (Vet | of Huen | ir satsq |
| 1548 | Signature | | | Signatu | re | I Luck | |
| Date | Name/Title | | | Name/1 | Title 7 | | |
| Time | Signature | | _ | Signatu | 70 | | |
| Time | Signature | | | Signatu | 10 | | |
| Date | Name/Title | | | Name/1 | îtle . | | |
| Time | Signature | | | Signatu | re | | 1.2 |

Effective Date: 04/16/2018



Arkansas Department of Environmental Quality for Compliance, Enforcement, or Emergency Samples



| Facility or Project Name | | AFIN # / County | | Sai | mple | | | Parai | meters | Requ | ested | | | Container T | ype Code | * 4 | Media Code | Preserv | ation Code | |
|----------------------------|----------------|----------------------|---------------------------|----------------|------------|-------------------|-------|-------------------------------------|---|------------|----------|------|----------|--------------|-------------|----------------|-------------------|---------------|-----------------|--|
| Old Midland Products | Site (OMP) | | С | | terist | ics | | | | f Conta | | 1 | | olyethyle | | | = water | A = Cool | | |
| Ola, Arkansa | IS | 75-00049 | 2) | | | | | Ŧ. | iţ | | | Ja | G = (| Glass | | G: | groundwater | B = Sulfu | ıric Acid | |
| Function Code 5 | 0014 | 1 | te (| | | | | PA | ate, | | 7 | | A = / | Amber Gla | ss | L= | liquid (not water | r) C = Nitrio | C = Nitric Acid | |
| Printed Name of Sampler(s) | | | osi | | | ø | | e, | ak ak | . 1 | 13 | 1 | 0 = 0 | Other (Spe | cify) | S= | soil or solid | D = NaOH | | |
| | | | E E | g g | | Тур | | <u>G</u> | , Y | | 1-4 | 1 | | | | E= | edible tissue | E = Sodium | Thiosulfate | |
| | | | Ñ | 7 | g | no | | iles | loric trite | | 3 | | Instanta | neous | = | F= | whole fish | F = Othe | r (specify) | |
| | | | 10 | ner | Š | vati | | olat | 유 | ē. | 2/2 | | Flow | | _ | B = | = other | | | |
| Sample ID | Date Collected | Time Collected | Grab (1) or Composite (2) | Container Type | Media Code | Preservation Type | ပ္ | Semivolatiles (PCP, PAH, Carbazole) | Anions chloride, sulfate, nitrate+ nitrite-N, alkalinity | Total Iron | Disalmol | | | Field Me | easurement | S | Latitude | Longitude | Lab # | |
| Campie 15 | (mm/dd/yy) | (hh:mm) | Ö | ပိ | _ | Pre | TOC | | P ii | 인 | | | DO (mg/L | .) pH (SU) | Temp (*C) | Time | (dd.ddddd) | (dd.ddddd) | 39 | |
| MW-95 | 4/24/18 | 1349 1135 | 1 | 0 | G | F | 1 | 1 | 1 | D | 1 | | 2,26 | 6.19 | - 25.1 | 1134 | | | 2018-1712 | |
| MW-90 | 1 | 1220 | 1 | 1 | V | 1 | 1 | 1 | 1 | 1 | | | 1.11 | 6.58 | 23.3 | 1718 | | | 1713 | |
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| | | | | | | | | - | | | | | | - | - 2 | Maria Maria | | | | |
| | | | | | | | | | | | | | | | 1 | | | | . Joseph | |
| | | | | | | | | | | | | | | | | | | | | |
| SAMPLE CONDITION UPON RI | | | | | | | | | | | | | | MMENTS | | | | | | |
| 1. Containers Correct | -/ | eport results to Dia | anna | Kilbu | rn 682 | 2-0844 | or Ty | ler Wr | ight 68 | 33-006 | 8; ADE | Q La | ooratory | number 5 | 01-682-0955 | 5; | | | | |
| 2. COC & Labels Agree | | harge time to fun | ction | coa | e 500 | 14 | | | | | | | | | | | | (- | 1 6 | |
| 3. Received On Ice | Yes No | | | | | | | | | | | | | | | | | 13 | 4 | |
| 4. Temp (*C) Upon Receipt | 1.90c | | | | | | | | | | | | | | | | | | | |
| FOR COMPLETION BY L | AB ONLY | | | | | | | | | Y | | | | | | | | | | |

| ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY CHAIN-OF-CUSTODY | | | | | | | | | | |
|---|----------------------------|--|--------------|---------|-------------|------------|-----------|--|--|--|
| Date 4/14/18 | | Sampler (| | | ANETH | STYDEBAK | ER | | | |
| Site Identification | Old Midland Prod | | | | | | | | | |
| Site Address | Hwy 10 Ola, AR | | | | | | | | | |
| Sample ID | Sample Remarks | Sample Remarks Time (hhmm) Latitude Longitude Lab-ID | | | | | | | | |
| Mw-95 Mw-91) | | | 1139 | ĩ | | | | | | |
| MW-91) | | | 120 | 0 | | | | | | |
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| | tody seal on each containe | er?: YES | S NO | _ | els/COC agr | ee?: YES N | 40 | | | |
| Date/Time | Relinquished By Name/Title | | | Name/T | ived By | | | | | |
| 4/24/2018 | Elizabeth Studebalce | r, aco | logist | - | Jim Cra | rig FT | ~ | | | |
| Time 14p5 | Signature And In | | <i>J</i> | Signatu | te) | J | | | | |
| Date | Name/Title | | | Name/T | Steph C | 51 0 | 1 | | | |
| 4-24-2018 | | PTU | | U | r Jest (k | dehr | hem Supo. | | | |
| Time 1548 | Signature | | | Signatu | re \ | 1)1 | | | | |
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| Bute | | | | rume, r | nie - | | | | | |
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| Date | Name/Title | | | Name/T | itle | - | | | | |
| | v Amo | | Trains Title | | | | | | | |
| Time | Signature | | | Signatu | re | | | | | |

Effective Date: 04/16/2018



Lab Contact Info:

ADEQ Laboratory and Monitoring Services

5301 Northshore Drive, North Little Rock, AR 72118

www.adeq.state.ar.us

Lessie Redican

Redican@adeq.state.ar.us

501-682-0937

Collector: Associates, FTN Project: Old Midland

Project Description: Old Midland 2018 1772-1784

Date and Time Received: 04/25/2018 16:08 Work Order Number: WO-180426-01

Case Narrative:

The following parameters were analyzed in the field upon collection by FTN Associates personnel:

pН

Specific Conductance

Turbidity

Water Temperature

Dissolved Oxygen

Ferrous Iron

Quality Control Excursions:

Anions Batch # AB-180427-002--The Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples did not recover within acceptance criteria due to the high concentration of target analyte (Sulfate) in the parent sample, 2018-1772 (MW-20S). The MS/MSD recoveries were qualified as "MBA" which means "Masked by Analyte." No sample results for sulfate were qualified as a result of these failures.

Sample Receipt Conditions:

| Condition | Response | Comment |
|--------------------------------|----------|---------|
| Is the COC completed properly? | Yes | |
| Temperature on Receipt | 3.3°C | |
| Received on Ice | Yes | |
| Containers are Correct | Yes | |
| Custody Seals | Yes | |
| COC/Labels Agree | Yes | |

Data Qualifiers

| Qualifier Flag | Description |
|----------------|-------------------|
| MBA | Masked by Analyte |



Laboratory Name: ADEQ Laboratory and Monitoring Services Email: Kilburn@adeq.state.ar.us

Contact Name: Kilburn, Dianna Phone: 501-682-0844

Lab Address: 5301 Northshore Drive North Little Rock, AR 72118 Fax:

Collector: Associates, FTN Site: MW-20S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:12

Sample Barcode: Sample Number: 2018-1772

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1772-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 99.9 mg/L 6 1 4/27/2018 10:11

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1772-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) 89.3 0.5 Chloride mg/L 1 4/27/2018 11:09 158 5 4/27/2018 16:24 Sulfate mg/L 2.5

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1772-1-5 Batch Number: AB-180501-015

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.580

mg/L

1 4/24/2018 15:09

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1772-1-4 Batch Number: AB-180503-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) 2.00 mg/L 0.5 1 4/24/2018 15:09

ICP/MS Metals (Dissolved) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1772-5-1 Batch Number: AB-180508-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 1820
 ug/L
 5
 1
 5/8/2018
 12:38



Collector: Associates, FTN Site: MW-20S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:12

Sample Barcode: Sample Number: 2018-1772

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1772-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/26/2018
14:14

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1772-1-6 Batch Number: AB-180501-014

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.40
 units
 1
 4/24/2018
 15:09

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1772-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 764 uS/cm 1 1 4/24/2018 15:09

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1772-1-7 Batch Number: AB-180501-016

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 25.1 °C 1 4/24/2018 15:09

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1772-2-1 Batch Number: AB-180426-002

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

7 total Organic Carbon

7 total Organic Carbon

Result
Units
Q
Limit
Dilution
Date and Time
1 1 4/27/2018 0:41

This analytical report must be reproduced in its entirety * = reported result it



Collector: Associates, FTN Site: MW-20S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:12

Sample Barcode: Sample Number: 2018-1772

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1772-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 108 NTU 1 4/24/2018 15:09



Collector: Associates, FTN Site: MW-20D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:45

Sample Barcode: Sample Number: 2018-1773

Sample Baresde.

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1773-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 90.6 mg/L 6 1 4/27/2018 10:15

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1773-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride 62.2 0.5 4/27/2018 11:38 mg/L 1 141 2.5 5 4/27/2018 16:39 Sulfate mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1773-1-5 Batch Number: AB-180501-015

Analyte(s) Result Units Q Limit Dilution Date and Time

1.47 mg/L 1 4/24/2018 15:42

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1773-1-4 Batch Number: AB-180503-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) 1.50 mg/L 0.5 1 4/24/2018 15:42

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1773-3-1 Batch Number: AB-180430-004

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 1940 ug/L 5 1 5/1/2018 0:16



Collector: Associates, FTN Site: MW-20D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland
Matrix: Water Collected: 4/24/2018 15:45

Sample Barcode: Sample Number: 2018-1773

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1773-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.0521
mg/L
0.05
1
4/26/2018
14:24

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1773-1-6 Batch Number: AB-180501-014

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.21
 units
 1
 4/24/2018
 15:42

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1773-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 634 uS/cm 1 1 4/24/2018 15:42

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1773-1-7 Batch Number: AB-180501-016

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 21.0 °C 1 4/24/2018 15:42

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1773-2-1 Batch Number: AB-180426-002

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 0:59

^{* =} reported result has not been approved



Collector: Associates, FTN Site: MW-20D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:45

Sample Barcode: Sample Number: 2018-1773

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1773-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 18.7 NTU 1 4/24/2018 15:42



Collector: Associates, FTN Site: MW-10D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:38

Sample Barcode: Sample Number: 2018-1774

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1774-1-1 Batch Number: AB-180426-035

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 217 | mg/L | | 6 | 1 | 4/27/2018 10:18 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1774-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | 51.9 | mg/L | | 0.5 | 1 | 4/27/2018 11:45 |
| Sulfate | 2.57 | mg/L | | 0.5 | 1 | 4/27/2018 11:45 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1774-1-5 Batch Number: AB-180501-015

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.880 | mg/L | | | 1 | 4/24/2018 15:36 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1774-1-4 Batch Number: AB-180503-015

| | | | | Reporting | | Analysis |
|----------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | 1.00 | mg/L | | 0.5 | 1 | 4/24/2018 15:36 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1774-3-1 Batch Number: AB-180430-004

| | | | | Reporting | | Analysis | |
|------------|--------|-------|---|-----------|----------|---------------|--|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time | |
| Iron | 1220 | ug/L | | 5 | 1 | 5/1/2018 0:22 | |



Collector: Associates, FTN Site: MW-10D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:38

Sample Barcode: Sample Number: 2018-1774

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1774-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/26/2018
14:25

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1774-1-6 Batch Number: AB-180501-014

Analyte(s) Result Units Q Limit Dilution Date and Time

PH 7.32 units 1 4/24/2018 15:36

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1774-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 501 uS/cm 1 1 4/24/2018 15:36

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1774-1-7 Batch Number: AB-180501-016

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 22.4 °C 1 4/24/2018 15:36

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1774-2-1 Batch Number: AB-180426-002

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time
Total Organic Carbon

7.00
Result
Units
Q
Limit
Dilution
Date and Time
1.17
1.27/2018
1:17

^{* =} reported result has not been approved



Collector: Associates, FTN Site: MW-10D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 15:38

Sample Barcode: Sample Number: 2018-1774

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1774-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 15.4 NTU 1 4/24/2018 15:36



Collector: Associates, FTN Site: MW-10S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 16:16

Sample Barcode: Sample Number: 2018-1775

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1775-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 160 mg/L 6 1 4/27/2018 10:19

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1775-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Sulfate 361 2.5 5 4/27/2018 16:46 mg/L 223 2.5 5 4/27/2018 16:46 Chloride mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1775-1-5 Batch Number: AB-180501-015

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 1.35 mg/L 1 4/24/2018 16:15

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1775-1-4 Batch Number: AB-180503-015

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 <0.500</td>
 mg/L
 0.5
 1
 4/24/2018
 16:15

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1775-3-1 Batch Number: AB-180430-004

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 71.3 ug/L 5 1 5/1/2018 0:28



Collector: Associates, FTN Site: MW-10S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 16:16

Sample Barcode: Sample Number: 2018-1775

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1775-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/26/2018
14:26

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1775-1-6 Batch Number: AB-180501-014

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.19
 units
 1
 4/24/2018 16:15

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1775-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 1260 uS/cm 1 1 4/24/2018 16:15

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1775-1-7 Batch Number: AB-180501-016

Analyte(s)ResultUnitsQLimitDilutionDate and TimeWater Temperature20.7°C14/24/2018 16:15

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1775-2-1 Batch Number: AB-180426-002

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

7 total Organic Carbon

7 total Organic Carbon

Nesult
Units
Q
Limit
Dilution
Date and Time
1 1 4/27/2018 1:37

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Collector: Associates, FTN Site: MW-10S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 16:16

Sample Barcode: Sample Number: 2018-1775

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1775-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 3.53 NTU 1 4/24/2018 16:15



Collector: Associates, FTN Site: EB-6 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/24/2018 17:00

Sample Barcode: Sample Number: 2018-1776

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1776-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity <6.00 mg/L 6 1 4/27/2018 10:34

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1776-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride < 0.500 0.5 4/27/2018 12:00 mg/L 1 < 0.500 0.5 4/27/2018 12:00 Sulfate mg/L

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1776-3-1 Batch Number: AB-180430-004

Analyte(s) Result Units Q Limit Dilution Date and Time

Iron <5.00 ug/L 5 1 5/1/2018 1:20

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1776-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

<-0.0500
mg/L
0.05
1
4/26/2018
14:27

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1776-2-1 Batch Number: AB-180426-002

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 1:56



Collector: Associates, FTN Site: EB-5 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland Matrix: Water Collected: 4/24/2018 17:18

Sample Barcode: Sample Number: 2018-1777

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1777-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity <6.00 mg/L 6 1 4/27/2018 10:22

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1777-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride < 0.500 0.5 4/27/2018 12:22 mg/L 1 < 0.500 0.5 4/27/2018 12:22 Sulfate mg/L

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1777-3-1 Batch Number: AB-180430-004

Analyte(s) Result Units Q Limit Dilution Date and Time

Iron <5.00 ug/L 5 1 5/1/2018 1:26

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1777-1-3 Batch Number: AB-180426-034

Analyte(s) Result Units Q Limit Dilution Date and Time
Nitrite+Nitrate as Nitrogen <0.0500 mg/L 0.05 1 4/26/2018 14:28

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1777-2-1 Batch Number: AB-180426-002

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 2:14

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Collector: Associates, FTN Site: MW-19S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 9:10

Sample Barcode: Sample Number: 2018-1778

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1778-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 88.7 mg/L 6 1 4/27/2018 10:23

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1778-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride 133 5 4/27/2018 16:54 mg/L 2.5 37.6 0.5 1 4/27/2018 12:29 Sulfate mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1778-1-5 Batch Number: AB-180501-015

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.630
mg/L

1 4/25/2018
9:08

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1778-1-4 Batch Number: AB-180503-015

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 <0.500</td>
 mg/L
 0.5
 1
 4/25/2018
 9:08

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1778-3-1 Batch Number: AB-180430-004

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 109
 ug/L
 5
 1
 5/1/2018
 1:32



Collector: Associates, FTN Site: MW-19S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 9:10

Sample Barcode: Sample Number: 2018-1778

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1778-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/26/2018
14:34

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1778-1-6 Batch Number: AB-180501-014

Analyte(s) Result Units Q Limit Dilution Date and Time

pH 5.73 units 1 4/25/2018 9:08

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1778-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 650 uS/cm 1 1 4/25/2018 9:08

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1778-1-7 Batch Number: AB-180501-016

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 17.5 °C 1 4/25/2018 9:08

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1778-2-1 Batch Number: AB-180426-002

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Total Organic Carbon
 <1.00</td>
 mg/L
 1
 1
 4/27/2018
 3:09

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Collector: Associates, FTN Site: MW-19S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 9:10

Sample Barcode: Sample Number: 2018-1778

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1778-1-9 Batch Number: AB-180501-018

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Turbidity
 5.95
 NTU
 1
 4/25/2018
 9:08



Collector: Associates, FTN Site: MW-19D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 9:47

Sample Barcode: Sample Number: 2018-1779

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1779-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 104 mg/L 6 1 4/27/2018 10:24

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1779-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | 89.1 | mg/L | | 0.5 | 1 | 4/27/2018 12:37 |
| Sulfate | 51.8 | mg/L | | 0.5 | 1 | 4/27/2018 12:37 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1779-1-5 Batch Number: AB-180501-015

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.310 | mg/L | | | 1 | 4/25/2018 9:45 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1779-1-4 Batch Number: AB-180503-015

| | | | Reporting | Analysis | | |
|----------------|--------|-------|-----------|----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | 1.50 | mg/L | | 0.5 | 1 | 4/25/2018 9:45 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1779-3-1 Batch Number: AB-180430-004

| | | | Reporting | Analysis | | |
|------------|--------|-------|-----------|----------|----------|---------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 2640 | ug/L | | 5 | 1 | 5/1/2018 1:38 |



Collector: Associates, FTN Site: MW-19D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 9:47

Sample Barcode: Sample Number: 2018-1779

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1779-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.0662
mg/L
0.05
1
4/26/2018
14:31

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1779-1-6 Batch Number: AB-180501-014

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.33
 units
 1
 4/25/2018
 9:45

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1779-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 570 uS/cm 1 1 4/25/2018 9:45

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1779-1-7 Batch Number: AB-180501-016

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Water Temperature

15.6
°C
1
4/25/2018
9:45

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1779-2-1 Batch Number: AB-180426-002

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 3:27

^{* =} reported result has not been approved



Collector: Associates, FTN Site: MW-19D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 9:47

Sample Barcode: Sample Number: 2018-1779

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1779-1-9 Batch Number: AB-180501-018

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Turbidity
 13.2
 NTU
 1
 4/25/2018
 9:45



Collector: Associates, FTN Site: RW-6 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 11:51

Sample Barcode: Sample Number: 2018-1780

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1780-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 144 mg/L 6 1 4/27/2018 10:25

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1780-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Sulfate 28.0 0.5 4/27/2018 12:44 mg/L 1 106 2.5 5 4/27/2018 17:01 Chloride mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1780-1-5 Batch Number: AB-180501-015

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.430 mg/L 1 4/25/2018 11:49

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1780-1-4 Batch Number: AB-180503-015

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) 0.500 mg/L 0.5 1 4/25/2018 11:49

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1780-3-1 Batch Number: AB-180430-004

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 1640 ug/L 5 1 5/1/2018 1:43



Collector: Associates, FTN Site: RW-6 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland
Matrix: Water Collected: 4/25/2018 11:51

Sample Barcode: Sample Number: 2018-1780

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1780-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Value 1.005

Analysis

Analyte(s)

Reporting
Analysis

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

4/26/2018
14:32

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1780-1-6 Batch Number: AB-180501-014

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.22
 units
 1
 4/25/2018
 11:49

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1780-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 640 uS/cm 1 1 4/25/2018 11:49

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1780-1-7 Batch Number: AB-180501-016

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Vater Temperature

15.0
°C
1 4/25/2018 11:49

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1780-2-1 Batch Number: AB-180427-001

Analyte(s) Result Units Q Limit Dilution Date and Time

Total Organic Carbon 1.15 mg/L 1 1 4/27/2018 8:40



Collector: Associates, FTN Site: RW-6 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 11:51

Sample Barcode: Sample Number: 2018-1780

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1780-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 19.2 NTU 1 4/25/2018 11:49



Collector: Associates, FTN Site: MW-5S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 8:53

Sample Barcode: Sample Number: 2018-1781

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1781-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 184 mg/L 6 1 4/27/2018 10:26

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1781-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | 29.0 | mg/L | | 0.5 | 1 | 4/27/2018 12:51 |
| Chloride | 35.1 | mg/L | | 0.5 | 1 | 4/27/2018 12:51 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1781-1-5 Batch Number: AB-180501-015

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.290 | mg/L | | | 1 | 4/25/2018 8:51 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1781-1-4 Batch Number: AB-180503-015

| | | | | Analysis | | |
|----------------|--------|-------|---|----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | <0.500 | mg/L | | 0.5 | 1 | 4/25/2018 8:51 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1781-3-1 Batch Number: AB-180430-004

| | | | Reporting | Analysis | | |
|------------|--------|-------|-----------|----------|----------|---------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 9.31 | ug/L | | 5 | 1 | 5/1/2018 1:49 |



Collector: Associates, FTN Site: MW-5S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 8:53

Sample Barcode: Sample Number: 2018-1781

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1781-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

0.050
Nitrite+Nitrate as Nitrogen

< 0.0500
mg/L
0.05
1
4/26/2018
14:33

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1781-1-6 Batch Number: AB-180501-014

Analyte(s) Result Units Q Limit Dilution Date and Time
pH 6.45 units 1 4/25/2018 8:51

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1781-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 441 uS/cm 1 1 4/25/2018 8:51

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1781-1-7 Batch Number: AB-180501-016

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 15.4 °C 1 4/25/2018 8:51

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1781-2-1 Batch Number: AB-180427-001

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Total Organic Carbon
 <1.00</td>
 mg/L
 1
 1
 4/27/2018
 8:58

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Collector: Associates, FTN Site: MW-5S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 8:53

Sample Barcode: Sample Number: 2018-1781

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1781-1-9 Batch Number: AB-180501-018

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Turbidity
 1.39
 NTU
 1
 4/25/2018
 8:51



Collector: Associates, FTN Site: MW-1S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 10:38

Sample Barcode: Sample Number: 2018-1782

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1782-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 21.2 mg/L 6 1 4/27/2018 10:27

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1782-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Analyte(s) Result Units Q Limit **Dilution Date and Time** Chloride 43.4 0.5 4/27/2018 12:59 mg/L 1 Sulfate 1.77 0.5 1 4/27/2018 12:59 mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1782-1-5 Batch Number: AB-180501-015

Analyte(s) Result Units Q Limit Dilution Date and Time

2.30 mg/L 1 4/25/2018 10:36

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1782-1-4 Batch Number: AB-180503-015

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 <0.500</td>
 mg/L
 0.5
 1
 4/25/2018 10:36

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1782-3-1 Batch Number: AB-180509-008

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 22.9 ug/L 5 1 5/9/2018 14:14



Collector: Associates, FTN Site: MW-1S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 10:38

Sample Barcode: Sample Number: 2018-1782

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1782-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.238
mg/L
0.05
1
4/26/2018
14:39

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1782-1-6 Batch Number: AB-180501-014

Analyte(s) Result Units Q Limit Dilution Date and Time

pH 5.52 units 1 4/25/2018 10:36

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1782-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 170 uS/cm 1 1 4/25/2018 10:36

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1782-1-7 Batch Number: AB-180501-016

Analyte(s)ResultUnitsQLimitDilutionDate and TimeWater Temperature18.7°C14/25/201810:36

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1782-2-1 Batch Number: AB-180427-001

Analyte(s) Result Units Q Limit Dilution Date and Time

Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 9:16

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Collector: Associates, FTN Site: MW-1S Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 10:38

Sample Barcode: Sample Number: 2018-1782

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1782-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 0.840 NTU 1 4/25/2018 10:36



Collector: Associates, FTN Site: MW-1D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 11:49

Sample Barcode: Sample Number: 2018-1783

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1783-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 173 mg/L 6 1 4/27/2018 10:32

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1783-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride 6.38 0.5 4/27/2018 13:06 mg/L 1 1.25 0.5 1 4/27/2018 13:06 Sulfate mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1783-1-5 Batch Number: AB-180501-015

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 2.68 mg/L 1 4/25/2018 11:47

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1783-1-4 Batch Number: AB-180503-015

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 <0.500</td>
 mg/L
 0.5
 1
 4/25/2018
 11:47

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1783-3-1 Batch Number: AB-180509-008

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 205
 ug/L
 5
 1
 5/9/2018
 14:19



Collector: Associates, FTN Site: MW-1D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 11:49

Sample Barcode: Sample Number: 2018-1783

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1783-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.106
mg/L
0.05
1
4/26/2018
14:40

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1783-1-6 Batch Number: AB-180501-014

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 7.00
 units
 1
 4/25/2018
 11:47

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1783-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 288 uS/cm 1 1 4/25/2018 11:47

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1783-1-7 Batch Number: AB-180501-016

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Vater Temperature

14.7
°C
1 4/25/2018 11:47

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1783-2-1 Batch Number: AB-180427-001

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

7 total Organic Carbon

7 total Organic Carbon

Nesult
Units
Q
Limit
Dilution
Date and Time
1 total Organic Carbon

1 1 4/27/2018 9:35

This analytical report must be reproduced in its entirety



Collector: Associates, FTN Site: MW-1D Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 11:49

Sample Barcode: Sample Number: 2018-1783

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1783-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 0.820 NTU 1 4/25/2018 11:47



Collector: Associates, FTN Site: RW-7 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 13:24

Sample Barcode: Sample Number: 2018-1784

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1784-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 263 mg/L 6 1 4/27/2018 10:33

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1784-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Sulfate 6.31 0.5 4/27/2018 13:13 mg/L 1 2.5 5 4/27/2018 17:08 Chloride 130 mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1784-1-5 Batch Number: AB-180501-015

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.180 mg/L 1 4/25/2018 13:22

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1784-1-4 Batch Number: AB-180503-016

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) 2.50 mg/L 0.5 1 4/25/2018 13:22

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1784-3-1 Batch Number: AB-180509-008

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 5080 ug/L 50 10 5/10/2018 11:21



Collector: Associates, FTN Site: RW-7 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 13:24

Sample Barcode: Sample Number: 2018-1784

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1784-1-3 Batch Number: AB-180426-034

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.0734
mg/L
0.05
1
4/26/2018
14:41

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1784-1-6 Batch Number: AB-180501-014

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.82
 units
 1
 4/25/2018
 13:22

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1784-1-8 Batch Number: AB-180501-017

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 900 uS/cm 1 1 4/25/2018 13:22

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1784-1-7 Batch Number: AB-180501-016

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

15.3
°C
1 4/25/2018 13:22

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1784-2-1 Batch Number: AB-180427-001

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon 1.34 mg/L 1 1 4/27/2018 9:53



Collector: Associates, FTN Site: RW-7 Work Order Number: WO-180426-01

Sample Classification: Special Project: Old Midland

Matrix: Water Collected: 4/25/2018 13:24

Sample Barcode: Sample Number: 2018-1784

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1784-1-9 Batch Number: AB-180501-018

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 3.93 NTU 1 4/25/2018 13:22

QUALITY CONTROL REPORT

Project: Old Midland 2018 1772-1784

Date and Time Received: 04/25/2018 16:08

| Analyte | Units | Method Blank | Reporting Limit | % Recovery LCS/LCSD | | % RPD Result | Limits | % RPD | % Recovery MS/MSD | Limits | % RPD | Limits | Qualifiers |
|-----------------------------|-------|-----------------|--------------------|------------------------|----------|---------------|--------|-------|----------------------|---------------|-----------|--------|------------|
| Total Organic Carbon | | SM 53 | 10 C, 2011 | | Batch #: | AB-180426-002 | | | Parent Sample: | 2018-1768 | | | |
| Total Organic Carbon | mg/L | <1.00 | 1.00 | 105.2 / | 85-115 | 1 | - | | 99.0 / 100.6 | 80-120 | 1.3 | - | |
| Nitrate +Nitrite as N | | SM 45 | 00-NO3 F, 20 | 011 | Batch #: | AB-180426-034 | | | Parent Sample: | 2018-1772 | | | |
| Nitrite+Nitrate as Nitrogen | mg/L | <0.0500 | 0.05 | 100.7 / | 80-120 | <0.0500 | 0-20 | N/A | 100.4 / 99.1 | 80-120 | 1.3 | 0-20 | |
| Alkalinity as CaCO3 | | EPA 3 | 10.2 (Rev. 1 | 974) | Batch #: | AB-180426-035 | | | Parent Sample: | 2018-1772 | | | |
| Alkalinity | mg/L | <6.00 | 6.00 | 99.6 / | 90-110 | 107 | 0-20 | 6.9 | 1 | - | | 0-20 | |
| Total Organic Carbon | | SM 53 | 10 C, 2011 | | Batch #: | AB-180427-001 | | | Parent Sample: | 2018-1785 | | | |
| Total Organic Carbon | mg/L | <1.00 | 1.00 | 104.2 / | 85-115 | 1 | - | N/A | 103.1 / 101.1 | 80-120 | 1.9 | - | |
| Anions | | EPA 30 1993) | 00.0 (Rev.2.1 | Ι, | Batch #: | AB-180427-002 | | | Parent Sample: | 2018-1772 | | | |
| Chloride | mg/L | <0.500 | 0.50 | 101.8 / | 90-110 | 89.6 | 0-20 | 0.3 | 85.9 / 86.2 | 80-120 | 0.0 | 0-20m | I |
| Sulfate | mg/L | <0.500 | 0.50 | 102.5 / | 90-110 | 158 | 0-20 | 0.2 | MBA/MBA | 80-120 | 0.0 | 0-20 | MBA |
| ICP/MS Metals (Total) | | EPA 2 1994) | 00.8 (Rev. 5 | .4, | Batch #: | AB-180430-004 | | | P | arent Sample: | 2018-1770 | | |
| Iron | ug/L | <5.00 | 5.00 | 93.8 / | 85-115 | I | - | | 105.6 / 103.7 | 70-130 | 1.7 | | I |
| ICP/MS Metals (Dissolv | ed) | EPA 20 1994) | 00.8 (Rev. 5. | 4, | Batch #: | AB-180508-001 | | | Parent Sample: | 2018-1825 | | | |
| Iron | ug/l | L <5.00 | 5.00 | 103.0 / | 85-11 | 5 | - | | 101.5 / 100.8 | 70-130 | 0.7 | | I |
| ICP/MS Metals (Total) | | EPA 2 1994) | 00.8 (Rev. 5 | i. 4 , | Batch #: | AB-180509-008 | | | Parent Sample: | 2018-1801 | | | |
| Iron | uç | g/L <5. | 00 5.00 | 105.0 | / 85-11 | 15 | | | 103.4 / 100.9 | 5 70-130 | 2.7 | | 1 |



Arkansas Department Environmental Quality for Compliance, Enforcement, or Emergency Samples

WO-180426-01



| Old Midland Products Site (OMP) Ola, Arkansas Function Code 50014 Printed Name of Sampler(s) Sample ID Date Collected (mm/dd/yy) Date Collected (mm/dd/yy) Date Collected (mm/dd/yy) Characteristics Characteristics Total No. of Containers P = Polyethylene/F A = Amber Glass A = Amber Glass O = Other (Specify) Instantaneous Flow Field Measu Do (mg/L) PH (SU) Total No. of Containers P = Polyethylene/F A = Amber Glass O = Other (Specify) Instantaneous Flow Field Measu Do (mg/L) PH (SU) Total No. of Containers P = Polyethylene/F A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers P = Polyethylene/F A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers P = Polyethylene/F A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers P = Polyethylene/F A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers P = Polyethylene/F A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = Amber Glass Do (mg/L) PH (SU) Total No. of Containers A = A | 2.46 | W = water G = groundwate L = liquid (not wa S = soil or solid E = edible tissue | r B = Sulfu ter) C = Nitrio | I to ≤ 6°C uric Acid c Acid |
|--|--------------|--|--------------------------------|-----------------------------------|
| Function Code 50014 Printed Name of Sampler(s) A = Amber Glass O = Other (Specify) | y) | L = liquid (not wa S = soil or solid | ter) C = Nitri | |
| Function Code 50014 Printed Name of Sampler(s) Output Outpu | <u>/)</u> | S = soil or solid | | c Acid |
| Printed Name of Sampler(s) Sod | <u>y)</u> | | D - N-O | A0.45 4-15-255 |
| I) or Come Code Code Code Code Code Code Code Cod | | E - adible tienus | D = NaO | H |
| Code Code Instantaneous Flow Instantaneous Flow Flow Instantaneous Ins | | The state of the s | | n Thiosulfate |
| | | F = whole fish | F = Othe | er (specify) |
| | | B = other | | |
| Sample ID Date Collected (mm/dd/yy) (hh:mm) | | Latitude | Longitude | |
| | Temp (*C) T | rime (dd.ddddd) | (dd.ddddd) | 2018 |
| MW-205 4/24/18 1512 10 G F 1 1 1 0 1 0.58 6.40 3 | 25,1 15 | 09 | | -1772 |
| MW-200 1 1545 1 1 1 1 1 1 1 1 6.21 3 | 21,0 15 | 42 | | -1773 |
| | 22:4 15 | 36 | | -1724 |
| MW-105 1616 1.35 6.19 | 20,7 16 | 15 | | -1775 |
| EB-6 1700 N/A N/A N | N/A NI | IA | | -1776 |
| EB-5 1718 1111 1 1 1 | | 1 | | -1778-1 |
| MW-195 4/25/18 0910 0.63 53 | . , . | 908 | | -1779-1 |
| MW-19D 1 0947 - 1 0,31 6,33 | | 945 | | 1-1280-1 |
| | 15.0 110 | 49 | | 119-1781-1 |
| | | 851 | 41 | -1280-1 |
| MU-015 1038 7,305,52 | 18,7 10 | 136 | | -1283-1 |
| MW-01D 1149 11 268 7.00 | | 47 | | -1785-1 |
| RW-7 1324 UUUUUUU G.186,821 | 15.3 13 | 77 | | -1285-1 |
| | and the same | | | |
| | | | | |
| | i on | | | |
| | | | | |
| SAMPLE CONDITION UPON RECEIPT IN LAB REMARKS / SAMPLE COMMENTS Containers Correct Yes No Report results to Dianna Kilburn 682-0844 or Tyler Wright 683-0068; ADEQ Laboratory number 501-6 | 200 0055 | | | |
| | 082-0955; | | | |
| | | | | |
| . Received On Ice Yes No | 4. 3 | | (| 0 |
| Temp (*C) Upon Receipt 3.3°C | | | , | (5) |
| FOR COMPLETION BY LAB ONLY | | | | V |

| Arkansas Department of Environmental Quality Chain-of-Custody | | | | | | | |
|---|---|----------|---------|----------------|-------------|------------|-------------|
| Date | 7 | Sampler | (print) | | | | |
| Site Identification | Old Midland Prod | ducts; A | FIN 7 | 5-000 | 049; EPA | Id# ARD | 980745665 |
| Site Address | Hwy 10 Ola, AR | 72853 | | | 5. | | |
| Sample ID | Sample Remarks | | Time (h | nmm) | Latitude | Longitude | Lab ID |
| MW-205 MW-20D | Metal, Freld filtered | | 1912 | | | | W. |
| MW-ZOD | 3 3 7 | 7 | 1545 | | | | |
| MW-100 | | | 1538 | | | , | |
| MW-105 | -124 | , | 1616 | | | 5 | |
| EB-6 | ASI+ End of day equip | blank | 1700 | | - /- | | |
| EB-5 | ASI+ End of day equip Ews End of Day equip | blan | 1718 | | | | |
| MW-195 | , 11 | × | 0910 | | | | |
| MW-19D ! | | | 099 | 7 | y T | | |
| nw-6 | Ç.,1 | | 115 |) | | | |
| 140-55 | y Aug. | | 085 | 3 | 3 | | II . |
| MW-015 | = | | | | | | |
| MW-011) | | | | 1 | | | |
| RW-7 | | | | -) | | | |
| | 2 = 2 - 3 | | ~ | | V | | |
| | | | | | | | |
| | tody seal on each contain | er?: YES | S NO | | els/COC agr | ee?: YES N | 10 |
| Date/Time | Relinquished By Name/Title | | | Rece Name/T | ived By | | |
| 4/75/14 | ALEX HAMILN | | | | Jim CKAig | FTL | |
| Time 1410 | Signature | | ł. | Signatur | | | |
| Date | Name/Title | | | Name/ | H V | | Chem |
| 4-25-18 | Jin Ceary | | 1 | Size | Jeff | Vaul | Chem Sup |
| 4-25-18 Time | Signature | | | Signatu | 3 11 | Ruh | |
| Date | Name//Title | | , A | Name/ | itle | | |
| Time | | | * | Signatu | | | |
| AMIC | M gnature | | | orginatu | | | ; " |
| Date | Name/Title | | | Name/T | itle | | |
| Time | Signature | 1 | ** | Signatur | re | | |

Effective Date: 04/16/2018



Lab Contact Info:

ADEQ Laboratory and Monitoring Services

5301 Northshore Drive, North Little Rock, AR 72118

www.adeq.state.ar.us

Lessie Redican

Redican@adeq.state.ar.us

501-682-0937

Collector: Associates, FTN Project: Old Midland

Project Description: Old Midland 2018 1785-1798

Date and Time Received: 04/26/2018 16:14 **Work Order Number: WO-180426-02**

Case Narrative:

The following parameters were analyzed in the field upon collection by FTN Associates personnel:

Hq

Specific Conductance

Turbidity

Water Temperature

Dissolved Oxygen

Ferrous Iron

In this Work Order, there were no quality control excursiions resulting in sample data qualification.

Sample Receipt Conditions:

| Condition | Response | Comment |
|--------------------------------|----------|---------|
| Is the COC completed properly? | Yes | |
| Temperature on Receipt | 3.5°C | |
| Received on Ice | Yes | |
| Containers are Correct | Yes | |
| Custody Seals | Yes | |
| COC/Labels Agree | Yes | |

Data Qualifiers

| Qualifier Flag |) Description |
|----------------|-------------------|
| MBA | Masked by Analyte |



Laboratory Name: ADEQ Laboratory and Monitoring Services Email: Kilburn@adeq.state.ar.us

Contact Name: Kilburn, Dianna Phone: 501-682-0844

Lab Address: 5301 Northshore Drive North Little Rock, AR 72118 Fax:

Collector: Associates, FTN Site: MW-17 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/25/2018 14:39

Sample Barcode: Sample Number: 2018-1785

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1785-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 31.7 mg/L 6 1 4/27/2018 10:35

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1785-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result **Units** Q Limit **Dilution Date and Time** Analyte(s) 18.4 0.5 Chloride mg/L 4/27/2018 13:21 0.5 1 4/27/2018 13:21 Sulfate 3.17 mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1785-1-5 Batch Number: AB-180501-021

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.640 mg/L 1 4/25/2018 14:37

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1785-1-4 Batch Number: AB-180503-016

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 <0.500</td>
 mg/L
 0.5
 1
 4/25/2018
 14:37

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1785-3-1 Batch Number: AB-180509-008

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 907
 ug/L
 5
 1
 5/9/2018 14:31



Collector: Associates, FTN Site: MW-17 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/25/2018 14:39

Sample Barcode: Sample Number: 2018-1785

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1785-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.295
mg/L
0.05
1
4/27/2018
8:28

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1785-1-6 Batch Number: AB-180501-020

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 5.69
 units
 1
 4/25/2018
 14:37

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1785-1-9 Batch Number: AB-180501-023

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 117 uS/cm 1 1 4/25/2018 14:37

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1785-1-7 Batch Number: AB-180501-022

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 14.8 °C 1 4/25/2018 14:37

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1785-2-1 Batch Number: AB-180427-001

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time

1 1 4/27/2018 10:11

This analytical report must be reproduced in its entirety



Collector: Associates, FTN Site: MW-17 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/25/2018 14:39

Sample Barcode: Sample Number: 2018-1785

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1785-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 12.6 NTU 1 4/25/2018 14:37



Collector: Associates, FTN Site: RW-1 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/25/2018 14:48

Sample Barcode: Sample Number: 2018-1786

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1786-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 250 mg/L 6 1 4/27/2018 10:37

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1786-1-2 Batch Number: AB-180427-002

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Chloride 191 2.5 5 4/27/2018 17:16 mg/L 78.3 0.5 1 4/27/2018 13:28 Sulfate mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1786-1-5 Batch Number: AB-180501-021

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.200 mg/L 1 4/25/2018 14:46

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1786-1-4 Batch Number: AB-180503-016

Analyte(s) Result Units Q Limit Dilution Date and Time

Iron (Ferrous) NA mg/L 0.5 1 4/25/2018 14:46

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1786-3-1 Batch Number: AB-180509-008

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 68.3
 ug/L
 5
 1
 5/9/2018
 14:37



Collector: Associates, FTN Site: RW-1 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland Matrix: Groundwater Collected: 4/25/2018 14:48

Sample Barcode: Sample Number: 2018-1786

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1786-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Analysis
Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

4/27/2018
8:32

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1786-1-6 Batch Number: AB-180501-020

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.70
 units
 1
 4/25/2018
 14:46

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1786-1-9 Batch Number: AB-180501-023

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 1200 uS/cm 1 1 4/25/2018 14:46

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1786-1-7 Batch Number: AB-180501-022

Analyte(s)ResultUnitsQLimitDilutionDate and TimeWater Temperature15.6°C14/25/201814:46

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1786-2-1 Batch Number: AB-180427-001

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon 2.73 mg/L 1 1 4/27/2018 11:42



Collector: Associates, FTN Site: RW-1 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/25/2018 14:48

Sample Barcode: Sample Number: 2018-1786

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1786-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 1.81 NTU 1 4/25/2018 14:46



Collector: Associates, FTN Site: EB-7 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/25/2018 15:35

Sample Parado: 1000 Midland

Sample Parado: 2018 1787

Sample Barcode: Sample Number: 2018-1787

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1787-1-1 Batch Number: AB-180426-035

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | <6.00 | mg/L | | 6 | 1 | 4/27/2018 10:38 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1787-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 13:50 |
| Sulfate | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 13:50 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1787-3-1 Batch Number: AB-180509-008

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | <5.00 | ug/L | | 5 | 1 | 5/9/2018 14:43 |

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1787-1-3 Batch Number: AB-180427-004

| | | | | Reporting | | Analysis |
|-----------------------------|---------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Nitrite+Nitrate as Nitrogen | <0.0500 | mg/L | | 0.05 | 1 | 4/27/2018 8:33 |

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1787-2-1 Batch Number: AB-180427-001

| | | | | Reporting | | Anaiysis |
|----------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Total Organic Carbon | <1.00 | mg/L | | 1 | 1 | 4/27/2018 12:03 |



Collector: Associates, FTN Site: EB-8 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/25/2018 15:30

Sample Barcode: Sample Number: 2018-1788

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1788-1-1 Batch Number: AB-180426-035

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | <6.00 | mg/L | | 6 | 1 | 4/27/2018 10:39 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1788-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 13:57 |
| Sulfate | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 13:57 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1788-3-1 Batch Number: AB-180509-008

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | <5.00 | ug/L | | 5 | 1 | 5/9/2018 14:48 |

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1788-1-3 Batch Number: AB-180427-004

| | | | | Reporting | | Analysis |
|-----------------------------|---------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Nitrite+Nitrate as Nitrogen | <0.0500 | mg/L | | 0.05 | 1 | 4/27/2018 8:37 |

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1788-2-1 Batch Number: AB-180427-001

| | | | | Reporting | | Analysis |
|----------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Total Organic Carbon | <1.00 | mg/L | | 1 | 1 | 4/27/2018 12:20 |



Collector: Associates, FTN Site: Neeley Well Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 11:20

Sample Barcode: Sample Number: 2018-1789

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1789-1-1 Batch Number: AB-180426-035

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 90.5 mg/L 6 1 4/27/2018 10:40

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1789-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | 2.27 | mg/L | | 0.5 | 1 | 4/27/2018 14:05 |
| Chloride | 18.7 | mg/L | | 0.5 | 1 | 4/27/2018 14:05 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1789-1-5 Batch Number: AB-180501-021

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.260 mg/L 1 4/26/2018 11:19

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1789-1-4 Batch Number: AB-180503-016

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron (Ferrous) 1.50 mg/L 0.5 1 4/26/2018 11:19

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1789-3-1 Batch Number: AB-180509-008

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 12000
 ug/L
 50
 10
 5/10/2018
 11:38



Collector: Associates, FTN Site: Neeley Well Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 11:20

Sample Barcode: Sample Number: 2018-1789

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1789-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Analysis
Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

4/27/2018
8:38

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1789-1-6 Batch Number: AB-180501-020

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 6.59
 units
 1
 4/26/2018
 11:19

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1789-1-9 Batch Number: AB-180501-023

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 208 uS/cm 1 1 4/26/2018 11:19

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1789-1-7 Batch Number: AB-180501-022

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 14.4 °C 1 4/26/2018 11:19

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1789-2-1 Batch Number: AB-180427-001

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 12:38

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Collector: Associates, FTN Site: Neeley Well Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 11:20

Sample Barcode: Sample Number: 2018-1789

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1789-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 22.7 NTU 1 4/26/2018 11:19



Collector: Associates, FTN Site: MW-18S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 8:38

Sample Barcode: Sample Number: 2018-1790

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1790-1-1 Batch Number: AB-180426-035

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 93.2 | mg/L | | 6 | 1 | 4/27/2018 10:43 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1790-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | 54.0 | mg/L | | 0.5 | 1 | 4/27/2018 14:12 |
| Sulfate | 19.0 | mg/L | | 0.5 | 1 | 4/27/2018 14:12 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1790-1-5 Batch Number: AB-180501-021

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.560 | mg/L | | | 1 | 4/26/2018 8:36 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1790-1-4 Batch Number: AB-180503-016

| | | | | Reporting | | |
|----------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | <0.500 | mg/L | | 0.5 | 1 | 4/26/2018 8:36 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1790-3-1 Batch Number: AB-180509-008

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 35.6 | ug/L | | 5 | 1 | 5/9/2018 15:11 |



Collector: Associates, FTN Site: MW-18S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 8:38

Sample Barcode: Sample Number: 2018-1790

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1790-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.0941
mg/L
0.05
1
4/27/2018
8:39

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1790-1-6 Batch Number: AB-180501-020

Analyte(s) Result Units Q Limit Dilution Date and Time
pH 6.11 units 1 4/26/2018 8:36

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1790-1-9 Batch Number: AB-180501-023

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 317 uS/cm 1 1 4/26/2018 8:36

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1790-1-7 Batch Number: AB-180501-022

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 14.7 °C 1 4/26/2018 8:36

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1790-2-1 Batch Number: AB-180427-001

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 12:56



Collector: Associates, FTN Site: MW-18S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 8:38

Sample Barcode: Sample Number: 2018-1790

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1790-1-8 Batch Number: AB-180501-024

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Turbidity
 1.20
 NTU
 1
 4/26/2018
 8:33



Collector: Associates, FTN Site: MW-18D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 9:25

Sample Barcode: Sample Number: 2018-1791

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1791-1-1 Batch Number: AB-180426-035

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 142 | mg/L | | 6 | 1 | 4/27/2018 10:44 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1791-1-2 Batch Number: AB-180427-002

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | 33.1 | mg/L | | 0.5 | 1 | 4/27/2018 14:19 |
| Sulfate | 1.86 | mg/L | | 0.5 | 1 | 4/27/2018 14:19 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1791-1-5 Batch Number: AB-180501-021

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.580 | mg/L | | | 1 | 4/26/2018 9:23 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1791-1-4 Batch Number: AB-180503-016

| | | | | Reporting | Analysis | |
|----------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | 0.500 | mg/L | | 0.5 | 1 | 4/26/2018 9:23 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1791-3-1 Batch Number: AB-180509-008

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 731 | ug/L | | 5 | 1 | 5/9/2018 15:17 |



Collector: Associates, FTN Site: MW-18D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 9:25

Sample Barcode: Sample Number: 2018-1791

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1791-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Analysis
Analyte(s)

Nitrite+Nitrate as Nitrogen

mg/L
0.05
1
4/27/2018
8:40

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1791-1-6 Batch Number: AB-180501-020

Analyte(s) Result Units Q Limit Dilution Date and Time
pH 6.78 units 1 4/26/2018 9:23

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1791-1-9 Batch Number: AB-180501-023

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time
Specific Conductance
302
uS/cm
1
1
4/26/2018
9:23

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1791-1-7 Batch Number: AB-180501-022

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 14.7 °C 1 4/26/2018 9:23

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1791-2-1 Batch Number: AB-180427-001

Analyte(s)
Result Units Q Limit Dilution Date and Time
Total Organic Carbon <1.00 mg/L 1 1 4/27/2018 13:16

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Collector: Associates, FTN Site: MW-18D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 9:25

Sample Barcode: Sample Number: 2018-1791

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1791-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 7.98 NTU 1 4/26/2018 9:23



Collector: Associates, FTN Site: MW-3D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 9:26

Sample Barcode: Sample Number: 2018-1792

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1792-1-1 Batch Number: AB-180427-005

Analyte(s) Result Units Q Limit Dilution Date and Time

Alkalinity 160 mg/L 6 1 4/27/2018 10:45

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1792-1-2 Batch Number: AB-180427-003

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Chloride | 108 | mg/L | | 2.5 | 5 | 4/27/2018 17:23 |
| Sulfate | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 14:41 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1792-1-5 Batch Number: AB-180501-021

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.360 | mg/L | | | 1 | 4/26/2018 9:24 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1792-1-4 Batch Number: AB-180503-016

| | | | | Reporting | | Analysis |
|----------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | 1.50 | mg/L | | 0.5 | 1 | 4/26/2018 9:24 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1792-3-1 Batch Number: AB-180509-008

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 5230 ug/L 50 10 5/10/2018 11:55



Collector: Associates, FTN Site: MW-3D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 9:26

Sample Barcode: Sample Number: 2018-1792

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1792-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

VIIITIE+Nitrate as Nitrogen
Analysis
Units
Q
Limit
Dilution
Date and Time

4/27/2018
8:42

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1792-1-6 Batch Number: AB-180501-020

Analyte(s) Result Units Q Limit Dilution Date and Time
pH 6.77 units 1 4/26/2018 9:24

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1792-1-9 Batch Number: AB-180501-023

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 684 uS/cm 1 1 4/26/2018 9:24

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1792-1-7 Batch Number: AB-180501-022

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 15.4 °C 1 4/26/2018 9:24

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1792-2-1 Batch Number: AB-180427-001

Analyte(s) Result Units Q Limit Dilution Date and Time
Total Organic Carbon 2.44 mg/L 1 1 4/27/2018 13:34

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Collector: Associates, FTN Site: MW-3D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 9:26

Sample Barcode: Sample Number: 2018-1792

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1792-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 1.92 NTU 1 4/26/2018 9:24



Collector: Associates, FTN Site: MW-3S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 8:48

Sample Barcode: Sample Number: 2018-1793

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1793-1-1 Batch Number: AB-180427-005

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 510 | mg/L | | 30 | 5 | 4/27/2018 10:55 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1793-1-2 Batch Number: AB-180427-003

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | 854 | mg/L | | 0.5 | 1 | 4/27/2018 14:49 |
| Chloride | 435 | mg/L | | 0.5 | 1 | 4/27/2018 14:49 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1793-1-5 Batch Number: AB-180501-021

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 0.960 | mg/L | | | 1 | 4/26/2018 8:46 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1793-1-4 Batch Number: AB-180503-016

| | | | | Reporting | Analysis | |
|----------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | 2.00 | mg/L | | 0.5 | 1 | 4/26/2018 8:46 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1793-3-1 Batch Number: AB-180509-008

| | | Reporting | | | Analysis | |
|------------|--------|-----------|---|-------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 5800 | ug/L | | 50 | 10 | 5/10/2018 12:12 |



Collector: Associates, FTN Site: MW-3S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland
Matrix: Groundwater Collected: 4/26/2018 8:48

Sample Barcode: Sample Number: 2018-1793

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1793-1-3 Batch Number: AB-180427-004

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1793-1-6 Batch Number: AB-180501-020

Analyte(s) Result Units Q Limit Dilution Date and Time
pH 6.19 units 1 4/26/2018 8:46

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1793-1-9 Batch Number: AB-180501-023

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time
Specific Conductance
3460
uS/cm
1
1
4/26/2018
8:46

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1793-1-7 Batch Number: AB-180501-022

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 14.7 °C 1 4/26/2018 8:46

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1793-2-1 Batch Number: AB-180427-001

Analyte(s)
Result Units Q Limit Dilution Date and Time
Total Organic Carbon 8.73 mg/L 1 1 4/27/2018 13:51

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Collector: Associates, FTN Site: MW-3S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 8:48

Sample Barcode: Sample Number: 2018-1793

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1793-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 3.42 NTU 1 4/26/2018 8:46



Collector: Associates, FTN Site: MW-8S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 12:47

Sample Barcode: Sample Number: 2018-1794

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1794-1-1 Batch Number: AB-180427-005

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 57.1 mg/L 6 1 4/27/2018 10:52

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1794-1-2 Batch Number: AB-180427-003

Reporting **Analysis** Result Units Q Limit **Dilution Date and Time** Analyte(s) Sulfate 261 2.5 5 4/27/2018 17:52 mg/L 74.6 0.5 1 4/27/2018 14:56 Chloride mg/L

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1794-1-5 Batch Number: AB-180501-021

Analyte(s) Result Units Q Limit Dilution Date and Time

Dissolved Oxygen 0.680 mg/L 1 4/26/2018 12:45

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1794-1-4 Batch Number: AB-180503-016

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron (Ferrous)
 <0.500</td>
 mg/L
 0.5
 1
 4/26/2018
 12:45

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1794-3-1 Batch Number: AB-180509-008

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 Iron
 63.4
 ug/L
 5
 1
 5/9/2018
 15:34



Collector: Associates, FTN Site: MW-8S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland
Matrix: Groundwater Collected: 4/26/2018 12:47

Sample Barcode: Sample Number: 2018-1794

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1794-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.198
mg/L
0.05
1
4/27/2018
8:44

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1794-1-6 Batch Number: AB-180501-020

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 5.64
 units
 1
 4/26/2018
 12:45

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1794-1-9 Batch Number: AB-180501-023

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 888 uS/cm 1 1 4/26/2018 12:45

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1794-1-7 Batch Number: AB-180501-022

Analyte(s)ResultUnitsQLimitDilutionDate and TimeWater Temperature16.0°C14/26/201812:45

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1794-2-1 Batch Number: AB-180427-001

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time
Total Organic Carbon

1.16
mg/L
1
1
4/27/2018
14:11

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Collector: Associates, FTN Site: MW-8S Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 12:47

Sample Barcode: Sample Number: 2018-1794

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1794-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 2.24 NTU 1 4/26/2018 12:45



Collector: Associates, FTN Site: MW-8D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 13:05

Sample Barcode: Sample Number: 2018-1795

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1795-1-1 Batch Number: AB-180427-005

Analyte(s) Result Units Q Limit Dilution Date and Time
Alkalinity 186 mg/L 6 1 4/27/2018 10:48

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1795-1-2 Batch Number: AB-180427-003

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | 24.4 | mg/L | | 0.5 | 1 | 4/27/2018 15:18 |
| Chloride | 20.1 | mg/L | | 0.5 | 1 | 4/27/2018 15:18 |

Dissolved Oxygen Method: SM 4500-O G, 2011

Aliquot #: 2018-1795-1-5 Batch Number: AB-180501-021

| | | | | Reporting | | Analysis |
|------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Dissolved Oxygen | 1.77 | mg/L | | | 1 | 4/26/2018 13:03 |

Ferrous Iron Method: HACH Color disc/1,10 Phenanthroline

Aliquot #: 2018-1795-1-4 Batch Number: AB-180503-016

| | | | | Reporting | | Analysis |
|----------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron (Ferrous) | <0.500 | mg/L | | 0.5 | 1 | 4/26/2018 13:03 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1795-3-1 Batch Number: AB-180509-008

Analyte(s) Result Units Q Limit Dilution Date and Time
Iron 362 ug/L 5 1 5/9/2018 15:40



Collector: Associates, FTN Site: MW-8D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 13:05

Sample Barcode: Sample Number: 2018-1795

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1795-1-3 Batch Number: AB-180427-004

Analyte(s)

Result
Units
Q
Limit
Dilution
Date and Time

Nitrite+Nitrate as Nitrogen

0.139
mg/L
0.05
1
4/27/2018
8:45

pH Method: SM 4500-H+ B, 2000

Aliquot #: 2018-1795-1-6 Batch Number: AB-180501-020

 Analyte(s)
 Result
 Units
 Q
 Limit
 Dilution
 Date and Time

 pH
 7.51
 units
 1
 4/26/2018 13:03

Specific Conductance Method: EPA 120.1, 1982

Aliquot #: 2018-1795-1-9 Batch Number: AB-180501-023

Analyte(s) Result Units Q Limit Dilution Date and Time
Specific Conductance 382 uS/cm 1 1 4/26/2018 13:03

Water Temperature Method: SM 2550 B, 2000

Aliquot #: 2018-1795-1-7 Batch Number: AB-180501-022

Analyte(s) Result Units Q Limit Dilution Date and Time
Water Temperature 16.8 °C 1 4/26/2018 13:03

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1795-2-1 Batch Number: AB-180427-001

Analyte(s)
Result
Units
Q
Limit
Dilution
Date and Time

1 1 4/27/2018 14:30

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Collector: Associates, FTN Site: MW-8D Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 13:05

Sample Barcode: Sample Number: 2018-1795

Turbidity Method: EPA 2310 B, 2011

Aliquot #: 2018-1795-1-8 Batch Number: AB-180501-024

Analyte(s) Result Units Q Limit Dilution Date and Time
Turbidity 7.38 NTU 1 4/26/2018 13:03



Collector: Associates, FTN Site: EB-9 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 14:20

Sample Barcode: Sample Number: 2018-1796

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1796-1-1 Batch Number: AB-180427-005

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 40.6 | mg/L | | 6 | 1 | 4/27/2018 10:56 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1796-1-2 Batch Number: AB-180427-003

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 15:48 |
| Chloride | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 15:48 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1796-3-1 Batch Number: AB-180509-008

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | <5.00 | ug/L | | 5 | 1 | 5/9/2018 15:46 |

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1796-1-3 Batch Number: AB-180427-004

| | | | | Reporting | | Analysis |
|-----------------------------|---------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Nitrite+Nitrate as Nitrogen | <0.0500 | mg/L | | 0.05 | 1 | 4/27/2018 8:46 |

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1796-2-1 Batch Number: AB-180427-001

| | | | | Reporting | | Anaiysis |
|----------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Total Organic Carbon | <1.00 | mg/L | | 1 | 1 | 4/27/2018 15:24 |



Collector: Associates, FTN Site: EB-10 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 13:40

Sample Barcode: Sample Number: 2018-1797

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1797-1-1 Batch Number: AB-180427-005

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | <6.00 | mg/L | | 6 | 1 | 4/27/2018 10:57 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1797-1-2 Batch Number: AB-180427-003

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 15:55 |
| Chloride | <0.500 | mg/L | | 0.5 | 1 | 4/27/2018 15:55 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1797-3-1 Batch Number: AB-180509-008

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | <5.00 | ug/L | | 5 | 1 | 5/9/2018 15:52 |

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1797-1-3 Batch Number: AB-180427-004

| | | | | Reporting | | Analysis |
|-----------------------------|---------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Nitrite+Nitrate as Nitrogen | <0.0500 | mg/L | | 0.05 | 1 | 4/27/2018 8:48 |

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1797-2-1 Batch Number: AB-180427-001

| | | | | Reporting | | Analysis |
|----------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Total Organic Carbon | <1.00 | mg/L | | 1 | 1 | 4/27/2018 15:44 |



Collector: Associates, FTN Site: IDW-1 Work Order Number: WO-180426-02

Sample Classification: Special Project: Old Midland

Matrix: Groundwater Collected: 4/26/2018 14:10

Sample Barcode: Sample Number: 2018-1798

Alkalinity as CaCO3 Method: EPA 310.2 (Rev. 1974) Analyst: KH

Aliquot #: 2018-1798-1-1 Batch Number: AB-180427-005

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Alkalinity | 150 | mg/L | | 6 | 1 | 4/27/2018 10:58 |

Anions Method: EPA 300.0 (Rev.2.1, 1993) Analyst: PR

Aliquot #: 2018-1798-1-2 Batch Number: AB-180427-003

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Sulfate | 86.5 | mg/L | | 0.5 | 1 | 4/27/2018 16:02 |
| Chloride | 85.7 | mg/L | | 0.5 | 1 | 4/27/2018 16:02 |

ICP/MS Metals (Total) Method: EPA 200.8 (Rev. 5.4, 1994) Analyst: PR

Aliquot #: 2018-1798-3-1 Batch Number: AB-180509-008

| | | | | Reporting | | Analysis |
|------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Iron | 13800 | ug/L | | 50 | 10 | 5/10/2018 12:30 |

Nitrate +Nitrite as N Method: SM 4500-NO3 F, 2011 Analyst: KH

Aliquot #: 2018-1798-1-3 Batch Number: AB-180427-004

| | | | | Reporting | | Analysis |
|-----------------------------|--------|-------|---|-----------|----------|----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Nitrite+Nitrate as Nitrogen | 0.0845 | mg/L | | 0.05 | 1 | 4/27/2018 8:51 |

Total Organic Carbon Method: SM 5310 C, 2011 Analyst: PR

Aliquot #: 2018-1798-2-1 Batch Number: AB-180427-001

| | | | | Reporting | | Anaiysis |
|----------------------|--------|-------|---|-----------|----------|-----------------|
| Analyte(s) | Result | Units | Q | Limit | Dilution | Date and Time |
| Total Organic Carbon | 2.30 | mg/L | | 1 | 1 | 4/27/2018 16:01 |

QUALITY CONTROL REPORT

Project: Old Midland 2018 1785-1798

Date and Time Received: 04/26/2018 16:14

| Analyte | Units | Method Blank | Reporting Limit | % Recovery LCS/LCSD | | % RPD Lab Dup Result | Limits | % Recovery % RPD MS/MSD | Limits | % RPD | Limits | Qualifiers |
|---|-------|-----------------|--------------------|------------------------|----------|-------------------------|--------|-------------------------|-----------|-------|--------|------------|
| Alkalinity as CaCO3 | | EPA 31 | 10.2 (Rev. | 1974) | Batch #: | AB-180426-035 | | Parent Sample: | 2018-1772 | | | |
| Alkalinity | mg/L | <6.00 | 6.00 | 99.6 / | 90-110 | 107 | 0-20 | 6.9 / | - | | 0-20 | |
| Total Organic Carbon | | SM 531 | 10 C, 2011 | | Batch #: | AB-180427-001 | | Parent Sample: | 2018-1785 | | | |
| Total Organic Carbon | mg/L | <1.00 | 1.00 | 104.2 / | 85-115 | I | - | N/A 103.1 / 101.1 | 80-120 | 1.9 | - | |
| Anions | | EPA 30 1993) | 00.0 (Rev.2 | 2.1, | Batch #: | AB-180427-002 | | Parent Sample: | 2018-1772 | | | |
| Chloride | mg/L | <0.500 | 0.50 | 101.8 / | 90-110 | 89.6 | 0-20 | 0.3 85.9 / 86.2 | 80-120 | 0.0 | 0-20 | |
| Sulfate | mg/L | <0.500 | 0.50 | 102.5 / | 90-110 | 158 | 0-20 | 0.2 MBA/MBA | 80-120 | 0.0 | 0-20 | MBA |
| | | | | | | | | | | | | |
| Anions | | EPA 3(1993) | 00.0 (Rev. | 2.1, | Batch #: | AB-180427-003 | | Parent Sample: | 2018-1795 | | | |
| Chloride | mg/L | <0.500 | 0.50 | 101.9 / | 90-110 | 20.2 | 0-20 | 0.3 91.0 / 97.4 | 80-120 | 2.4 | 0-20 | |
| Sulfate | mg/L | <0.500 | 0.50 | 102.4 / | 90-110 | 24.4 | 0-20 | 0.4 88.5 / 94.8 | 80-120 | 1.9 | 0-20 | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Nitrate +Nitrite as N | | SM 450 | 00-NO3 F, | 2011 | Batch #: | AB-180427-004 | | Parent Sample: | 2018-1785 | | | |
| Nitrate +Nitrite as N Nitrite+Nitrate as Nitrogen | mg/L | <0.0500 | 0.05 | 101.0 / | 80-120 | 0.297 | 0-20 | 0.7 102.3 / 99.0 | 80-120 | 2.2 | 0-20 | ı |
| | mg/L | | | 1 | | | | • | | | | ı |
| Alkalinity as CaCO3 | _ | EPA 31 | 10.2 (Rev. | | Batch #: | AB-180427-005 | | Parent Sample: | 2018-1795 | | 0.00 | |
| Alkalinity | mg/L | | | 1 | - | 190 | 0-20 | 2.1 / | - | | 0-20 | I |
| ICP/MS Metals (Total) | | EPA 20 1994) | 00.8 (Rev. | 5.4, | Batch #: | AB-180509-008 | | Parent Sample: | 2018-1801 | | | |
| Iron | ug/L | <5.00 | 5.00 | 105.0 / | 85-115 | 1 | - | 103.4 / 100.5 | 70-130 | 2.7 | - | R |



Arkansas Department Environmental Quality for Compliance, Enforcement, or Emergency Samples

WO-180426-02



| Facility or Project Name | | AFIN # / County | | Sar | mple | - 1 | | Parai | neters | Requ | ested | | | ntainer Ty | | | Media Code | Preserv | ation Code |
|--|----------------|---|---------------------------|----------------|------------|-------------------|---------|-------------------------------------|--|------------|---------|-------|-----------|--------------------------------|-----------|---|------------------------|----------------------|----------------|
| Old Midland Products | | | С | harac | terist | ics | | Total | No. of | f Conta | iners | | | Polyethylene/Plastic W = water | | | A = Cool | to ≤ 6°C | |
| Ola, Arkansa | | 75-00049 | (2) | | | | | Ŧ, | it. | (-) | | | G = G | | -1 | G = | groundwater | B = Sulfu | ric Acid |
| Function Code 5 | 0014 | | ite | | | | | P | fate calir | | | | 1 1 1 | mber Glas | | | liquid (not wate | | 11/20 20812089 |
| Printed Name of Sampler(s) | | | sodi | | | be | | SP | sul all | | | | 0 = 01 | ther (Spec | ify) | No. of Concession, Name of Street, or other Designation, Name of Street, Name | soil or solid | D = NaO | H |
| | | | Jom C | be /be | | Ty | | S (P | ide, e-N | | | | | | | STATE OF STATE | edible tissue | E = Sodium | |
| | | | Grab (1) or Composite (2) | Container Type | apc | Preservation Type | | Semivolatiles (PCP, PAH, Carbazole) | Anions chloride, sulfate, nitrate+ nitrite-N, alkalinity | ا ہ ا | | | Instantan | eous = | | | whole fish | F = Othe | r (specify) |
| | D . O | - 0 | Ξ | aine | Media Code | erva | 1 | vola | IS C e+ r | Total Iron | | | Flow | Field May | | | other | | Lab# |
| Sample ID | Date Collected | Time Collected | irab | ont | ledi | res | 100 | emi | nior | otal | | | DO (mg/L) | pH (SU) | Temp (*C) | Time | Latitude (dd.ddddd) | Longitude (dd.ddddd) | 2018 |
| 1 | (mm/dd/yy) | (hh:mm) | | | | | | 00 | | | - | - | | | | | (dd.ddddd) | (uu.uuuu) | |
| MW-175 | 4/25/18 | 1439 | 1 | 0 | G | F | 1 | 1 | 1 | 1 | | | 0.64 | | 14.8 | 1521 | | | 1785 |
| RW-1 | | 1448 | | - 4 | | | | | | | | | 0.70 | 6.70 | 15.6 | 1446 | 1 | | 1786 |
| EB-7 | | 1535 | | | | | | | | | | | NA | N/A | NIA | NA | | | 1787 |
| EB-8 | V | 1930 | | | | | | | | | | | 1 | 1 | | 1 | | | 1788 |
| NEELEX | 4/26/18 | 1120 | | | | | | | | | | | 0,26 | 6.99 | 14,4 | 1119 | | | 1789 |
| MW-185 | | 0 938 | | | | | | | | | | | 0.56 | 6.11 | 14,7 | 0836 | | | 1790 |
| MW-18D | | 0925 | | | | | | | | | | | 0,58 | 6.78 | 14,7 | 0973 | | | 1791 |
| MW-03D | | 0926 | | | | | | | | | | | 0.36 | 6.77 | 15,4 | 0974 | | | 1792 |
| MW-035 | | 0848 | | | | | | | | | | | 0.96 | 6.19 | 14,7 | 0846 | | | 1793 |
| Mw-085 | | 1247 | | | | | | | | | | | 0.68 | 5,64 | 16.0 | 1245 | | | 1794 |
| MU-08D | | 1305 | | | | | | | | | | | 1,77 | 7.51 | 16.8 | 1303 | | | 1795 |
| EB-9 | | 1420 | | | | | | | | | | | N/4 | NIA | NIA | NIA | | | 1796 |
| EB-10 | | 1340 | | | | | | | | | | | | - 1 |). | 3" | | | 1797 |
| IDW-1 | | 1410 | | | | | | | | | | | 1 | 1 | 1 | 4 | | | 1798 |
| | | | | | | | | | | | | | | | ž | | | | i.e. |
| ie. | | | | | | | | | | | | | | | 4. | | | | |
| | | | | | | | | | | | | | | | , , | | | | |
| SAMPLE CONDITION UPON RECEIPT IN LAB REMARKS / SAMPLE COMMENTS 1. Containers Correct ✓ Yes No Report results to Dianna Kilburn 682-0844 or Tyler Wright 683-0068; ADEQ Laboratory number 501-682-0955; | | | | | | | | | | | | | | | | | | | |
| 1. Containers Correct | | eport results to Dia harge time to fun | anna | Kilbu | rn 682 | 2-0844 | 4 or Ty | ler Wr | ght 68 | 33-006 | 3; ADEQ |) Lat | oratory n | umber 501 | -682-0955 | <u>;</u> | | | |
| 2. COC & Labels Agree | | narge time to fun | ction | coa | e 500 | 14 | | | | | | | | | | | | | |
| 3. Received On Ice | Yes No | | | | | | | | | | | | | | | | | ((| 7) |
| | 3.50€ | | | | | | | | | | | | | | | | | | 0 |
| FOR COMPLETION BY L | AB ONLY | | | | | | | | | | | | | | | | | | |

| | Arkansas Department C Chain-o | | | TAL QUALIT | Y | |
|---------------------|--|---------|----------|-------------|-------------|-------------------|
| Date 4/26/14 | Sampler | (print) | ALEX | HAMLEN. | ELIZABETH | STUDEBAKER |
| Site Identification | Old Midland Products; A | FIN 7 | 5-000 | 049; EPA | Id# ARD | 980745665 |
| Site Address | Hwy 10 Ola, AR 72853 | | | | | |
| Sample ID | Sample Remarks | Time (h | hmm) | Latitude | Longitude | Lab.ID |
| MW-175 | | 1439 | | | | 19 |
| RW-1 | in a second of the second of t | 144 | ક | | | 9 (²⁾ |
| EB-7 | | 1535 | - | | | |
| EB-8 | | 1530 | | | | |
| NEELEX | | 1170 | i i | 147 | | |
| MW-185 | | 0839 | В | | | |
| MW-181) | | 092 | Ş | | | |
| MW-031) | | 09 | 26 | | | |
| MW-035 | | 0848 | S | | | |
| MW-085 | | 1245 | 7- | | | |
| MW-08D | | 1305 | _ | | | |
| EB-9 | EWS END OF MAY BLANK | 142 | e) | | £ | |
| EB-10 | ASH END of DAY BLANK | 1340 |) | | | |
| Inw-1 | * | 1410 | , | | | |
| | , | | | | 15 | |
| | tody seal on each container?: YES | s No | | els/COC agr | ee?: (YE) 1 | NO |
| Date/Time | Relinquished By | | | ived By | | |
| 1/76/18 | Name/Title ALEX HAMIEN | | Name/I | Jim CRAC | FIL | |
| Time | Signature | | Signatur | TO CRAYO | FIRE | |
| 1431 | ales Han | | | tini (| | |
| Date 4/26/18 | Name/Title | | Name | a / / | 0 , | |
| Time | Signature Signature | | Signatu | Patrick 1 | Rawhouges | |
| 1614 | The Constant | | 1 | h Fe | | |
| Date | Name/Title | | Name/1 | itle | | |
| Time | Signature | | Signatu | re | | |
| | | | | | | |
| Date | Name/Title | | Name/T | itle | | , |
| Time | , Signature | | Signatu | re | | |

Legal COC Form Revision 001 Effective Date: 04/16/2018

Sample ID: 2018-1700 Operator: Ed Harris

Instrument ID: MS Instrument #1
Last Calibration:

Last Calibration: 5/23/2018 12:35 Acquisition Date: 5/23/2018 16:32

64 4-6-Dintro-2-methylpheno

Target Compounds

Extracted Sample EB-2 Extracted Date 04-25-2018 Extracted by EH, JR

Acceptance Reported Peaks: 91("#" Criteria % Rec. % Recovery Result Amount Units Qualifier 7 2-Fluorophenol (Surr.) 15-80 55.88 ug/L 8 Nitrobenzene-d5 (Surr.) 50-150 98.84 ug/L 9 2-Fluorobiphenyl (Surr.) 50-150 90.21 ug/L 10 2-4-6-Tribromophenol (Su 50-150 79.77 ug/L 11 Terphenyl-d14 (Surr.) 50-150 131.51 ug/L 12 Methyl Methanesulfonate < 0.2 ug/L 13 Ethyl methanesulfonate < 0.2 ug/L 14 Phenol < 0.2 ug/L 15 Aniline < 0.2 ug/L ug/L 16 Bis(2-chloroethyl) ether < 0.2 17 2-Chlorophenol < 0.2 ug/L 18 1,3-Dichlorobenzene < 0.2 ug/L 19 1.4-Dichlorobenzene < 0.2 ug/L 20 Benzyl Alcohol < 0.2 ug/L 21 1,2-Dichlorobenzene < 0.2 ug/L 22 2-Methylphenol < 0.2 ug/L 23 4-Methylphenol < 0.2 ug/L 24 Acetophenone < 0.2 ug/L 25 N-Nitroso-di-n-propylami < 0.2 ug/L 26 Hexachloroethane < 0.2 ug/L 27 Nitrobenzene < 0.2 ug/L 28 N-Nitrosopiperidine < 0.2 ug/L 29 Isophorone < 0.2 ug/L 30 2-Nitrophenol < 0.4 ug/L 31 2,4-Dimethylphenol < 0.2 ug/L 32 Bis(2-chloroethoxy) meth < 0.2 ug/L 33 2-4-Dichlorophenol < 0.2 ug/L 34 1-2-4-Trichlorobenzene < 0.2 ug/L 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L 44 2,4,6-Trichlorophenol < 0.2 ug/L 45 2,4,5-Trichlorophenol < 0.2 ug/L 46 2-Chloronaphthalene < 0.2 ug/L 47 1-Chloronaphthalene < 0.2 ug/L 48 2-Nitroaniline < 0.2 ug/L 49 Dimethyl-phthalate < 0.2 ug/L < 0.2 50 Acenaphthylene ug/L 51 2-6-Dinitrotoluene < 0.2 ug/L 52 3-Nitroaniline < 0.2 ug/L 53 Acenaphthene < 0.2 ug/L 54 2-4-Dinitrophenol < 2.0 ug/L 55 Dibenzofuran < 0.2 ug/L 56 4-Nitrophenol < 1.0 ug/L 57 Pentachlorobenzene < 0.2 ug/L 58 2-4-Dinitrotoluene < 0.2 ug/L 59 2-3-4-6-Tetrachloropheno < 0.4 ug/L 60 Fluorene < 0.2 ug/L 61 Diethylphthalate < 0.2 ug/L 62 4-Chlorophenyl-phenyl et < 0.2 ug/L 63 4-Nitroaniline < 0.2 ug/L

< 2.0

ug/L

| 6 | 5 Diphenylamine | < 0.2 | ug/L | |
|---|----------------------------|-------|------|-----------|
| 6 | 6 Azobenzene | < 0.2 | ug/L | |
| 6 | 7 4-Bromophenyl-phenyl eth | < 0.2 | ug/L | |
| 6 | 8 Hexachlorobenzene | < 0.2 | ug/L | |
| 6 | 9 Pentachlorophenol | < 1.0 | ug/L | |
| 7 | 0 Pentachloronitrobenzene | < 0.2 | ug/L | |
| 7 | 1 Pronamide | < 0.2 | ug/L | |
| 7 | 2 Phenanthrene | < 0.2 | ug/L | |
| 7 | 3 Anthracene | < 0.2 | ug/L | |
| 7 | 4 Carbazole | < 0.2 | ug/L | |
| 7 | 5 Di-n-butylphthalate | < 0.2 | ug/L | |
| 7 | 6 Fluoranthene | < 0.2 | ug/L | |
| 7 | 7 Pyrene | < 0.2 | ug/L | |
| 7 | 8 Dimethylaminoazobenzene | < 0.2 | ug/L | |
| 7 | 9 Butylbenzyl phthalate | < 0.2 | ug/L | |
| 8 | 0 Benz[a]anthracene | < 0.2 | ug/L | |
| 8 | 1 Chrysene | < 0.2 | ug/L | |
| 8 | 2 Bis(2-ethylhexyl) phthal | 0.24 | ug/L | B-Present |
| 8 | 3 Di-n-octyl phthalate | < 0.2 | ug/L | Lanalyte |
| 8 | 4 Benzo[b]fluoranthene | < 0.2 | ug/L | |
| 8 | 5 Dimethylbenzo(a)anthrace | < 0.2 | ug/L | |
| 8 | 6 Benzo(k)fluoranthene | < 0.2 | ug/L | |
| 8 | 7 Benzo(a)pyrene | < 0.2 | ug/L | |
| 8 | 8 3-Methylcholanthrene | < 0.2 | ug/L | |
| 8 | 9 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L | |
| 9 | 0 Dibenz(a-h)anthracene | < 0.2 | ug/L | Lanalyte |
| 9 | 1 Benzo(ghi)perylene | < 0.2 | ug/L | |
| | | | | |

B-Present in the Method Blank at 0.22 ug/L; L--analyte failed (high) to meet acceptance criteria in the LCS; result MAY be biased high L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

2018-1701 Sample ID: Operator: Ed Harris Instrument ID:

MS Instrument #1

Last Calibration: 5/24/2018 11:27 Acquisition Date: 5/25/2018 10:31

Extracted Sample MW-23 Extracted Date 04-25-2018 Extracted by EH, JR

 $NOTE: MW-23 \ was \ used \ as \ the \ "parent" \ sample \ in \ the \ preparation \ of \ the \ Matrix \ Spike/Matrix \ Spike \ duplicate$

Target Compounds

| Target Compour | nds | | | | | |
|----------------|--|------------------|------------|----------------|--------------|--|
| | | Acceptance | | Reported | | 0.110 |
| Peaks: 91("#" | Peak Name | Criteria % Rec. | % Recovery | Result | Amount Units | Qualifier |
| | 7 2-Fluorophenol (Surr.) | 15-80 | 51.9 | | ug/L | |
| | 8 Nitrobenzene-d5 (Surr.) | 50-150 | 78.7 79 | | ug/L | |
| | 9 2-Fluorobiphenyl (Surr.) | 50-150 50-150 | 89.6 | | ug/L | |
| | 10 2-4-6-Tribromophenol (Su | | | | ug/L | |
| | 11 Terphenyl-d14 (Surr.) | 50-150 | 102.6 | | ug/L | |
| | 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| | 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| | 14 Phenol | | | < 0.2 | ug/L | AA AA LA GUADA AA |
| | 15 Aniline | | | < 0.2 | ug/L | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased low |
| | 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| | 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| | 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| | 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 22 2-Methylphenol | | | < 0.2 | ug/L | |
| | 23 4-Methylphenol | | | < 0.2 | ug/L | |
| | 24 Acetophenone | | | < 0.2 | ug/L | |
| | 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| | 26 Hexachloroethane | | | < 0.2 | ug/L | |
| | 27 Nitrobenzene | | | < 0.2 | ug/L | |
| | 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| | 29 Isophorone | | | < 0.2 | ug/L | |
| | 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| | 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | |
| | 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| | 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| | 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| | 35 Naphthalene | | | < 0.2 | ug/L | |
| | 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| | 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| | 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| | 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| | 40 4-Chloro-3-methylphenol | | | < 0.2 < 0.2 | ug/L | |
| | 41 2-Methylnaphthalene | | | | ug/L | |
| | 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| | 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| | 44 2,4,6-Trichlorophenol 45 2,4,5-Trichlorophenol | | | < 0.2 < 0.2 | ug/L | |
| | | | | < 0.2 | ug/L | |
| | 46 2-Chloronaphthalene 47 1-Chloronaphthalene | | | < 0.2 | ug/L ug/L | |
| | 48 2-Nitroaniline | | | < 0.2 | ug/L ug/L | |
| | 49 Dimethyl-phthalate | | | < 0.2 | | |
| | 50 Acenaphthylene | | | < 0.2 | ug/L | |
| | 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L ug/L | |
| | 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| | 53 Acenaphthene | | | < 0.2 | ug/L | |
| | 54 2-4-Dinitrophenol | | | < 2.0 | ug/L ug/L | |
| | 55 Dibenzofuran | | | < 0.2 | ug/L ug/L | |
| | 56 4-Nitrophenol | | | < 1.0 | ug/L ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| | 57 Pentachlorobenzene | | | < 0.2 | ug/L ug/L | in the or may made railed to meet acceptance criteria |
| | 58 2-4-Dinitrotoluene | | | < 0.2 | ug/L ug/L | |
| | 59 2-3-4-6-Tetrachloropheno | | | < 0.4 | ug/L ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| | 60 Fluorene | | | < 0.4 | ug/L ug/L | II. III. 5 5. III.5/III.55 falled to filect acceptance criteria |
| | 61 Diethylphthalate | | | < 0.2 | ug/L ug/L | |
| | 62 4-Chlorophenyl-phenyl et | | | < 0.2 | ug/L ug/L | |
| | 63 4-Nitroaniline | | | < 0.2 | ug/L ug/L | |
| | 64 4-6-Dintro-2-methylpheno | | | < 2.0 | ug/L ug/L | |
| | 5 5 Dina 2 meanyipheno | | | . 2.0 | ~6/ L | |

| 65 Diphenylamine | < 0.2 | ug/L | |
|-----------------------------|-------|---------|--|
| 66 Azobenzene | < 0.2 | ug/L | |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L | |
| 68 Hexachlorobenzene | < 0.2 | ug/L | |
| 69 Pentachlorophenol | < 1.0 | ug/L | |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L | |
| 71 Pronamide | < 0.2 | ug/L | |
| 72 Phenanthrene | < 0.2 | ug/L | |
| 73 Anthracene | < 0.2 | ug/L | |
| 74 Carbazole | < 0.2 | ug/L | |
| 75 Di-n-butylphthalate | < 0.2 | ug/L | |
| 76 Fluoranthene | < 0.2 | ug/L | |
| 77 Pyrene | < 0.2 | ug/L | |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L | |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L | |
| 80 Benz[a]anthracene | < 0.2 | ug/L | |
| 81 Chrysene | < 0.2 | ug/L | |
| 82 Bis(2-ethylhexyl) phthal | 0.3 | 28 ug/L | Bpresent in the method blank at 0.22 ug/L; Lanalyte failed (high) to meet accepance criteria in the LCS; result MAY be biased high |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L | Lanalyte failed (high) to meet accepance criteria in the LCS;; failure has NO effect on non-detect results |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L | |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L | |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L | |
| 87 Benzo(a)pyrene | < 0.2 | ug/L | |
| 88 3-Methylcholanthrene | < 0.2 | ug/L | |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L | |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L | Lanalyte failed (high) to meet accepance criteria in the LCS; ; failure has NO effect on non-detect results |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L | |
| | | | |

Sample ID: 2018-1701 Dup Operator: Ed Harris

Extracted Sample MW-23 Extracted Date 04-25-2018 Instrument MS Instrument #1 Extracted by EH, JR

5/24/2018 11:27 Last Calibra 5/25/2018 11:00 Acquisition

| Target | Compounds |
|--------|-----------|

| Target Compounds | Acceptance | | Reporte | d | | RPD |
|--|-----------------|------------|----------------|---------------|----------|--|
| Peaks: 91(" Peak Name | Criteria % Rec. | % Recovery | Result | Amount Ur RPE | | Acc. Criteria Qualifier |
| 7 2-Fluorophenol (Surr.) | 15-80 | 48.9 | | ug/L | D (70) | Activities against |
| 8 Nitrobenzene-d5 (Surr.) | 50-150 | 75.8 | | ug/L | | |
| 9 2-Fluorobiphenyl (Surr.) | 50-150 | 77.8 | | ug/L | | NA target analyte was Non-detect in the sample and dup |
| 10 2-4-6-Tribromophenol (Su | 50-150 | 96.2 | | ug/L | | the target analyte was non-detect in the sample and dap |
| 11 Terphenyl-d14 (Surr.) | 50-150 | 100.5 | | ug/L | | |
| 12 Methyl Methanesulfonate | 30 130 | 100 | < 0.2 | | NA | |
| 13 Ethyl methanesulfonate | | | < 0.2 | | NA | |
| 14 Phenol | | | < 0.2 | | NA | |
| 15 Aniline | | | < 0.2 | | NA | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased Low |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | | NA | Wi-Arrangte failed (low) to friend acceptance criteria for wis analysis wisb recovery, result wint be blased low |
| 17 2-Chlorophenol | | | < 0.2 | | NA | |
| 18 1,3-Dichlorobenzene | | | < 0.2 | 0. | NA | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | | NA | |
| 20 Benzyl Alcohol | | | | - | NA | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | | NA | |
| | | | | | | |
| 22 2-Methylphenol 23 4-Methylphenol | | | < 0.2 < 0.2 | | NA NA | |
| | | | | | | |
| 24 Acetophenone | | | < 0.2 | - | NA | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | | NA | |
| 26 Hexachloroethane | | | < 0.2 | | NA | |
| 27 Nitrobenzene | | | < 0.2 | | NA | |
| 28 N-Nitrosopiperidine | | | < 0.2 | | NA | |
| 29 Isophorone | | | < 0.2 | | NA | |
| 30 2-Nitrophenol | | | < 0.4 | | NA | |
| 31 2,4-Dimethylphenol | | | < 0.2 | | NA | |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | | NA | |
| 33 2-4-Dichlorophenol | | | < 0.2 | - | NA | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | | NA | |
| 35 Naphthalene | | | < 0.2 | 0. | NA | |
| 36 4-Chloroaniline | | | < 0.2 | | NA | |
| 37 2-6-Dichlorophenol | | | < 0.2 | | NA | |
| 38 Hexachlorobutadiene | | | < 0.2 | | NA | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | | NA | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | | NA | |
| 41 2-Methylnaphthalene | | | < 0.2 | | NA | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | | NA | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | | NA | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | 0. | NA | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | | NA | |
| 46 2-Chloronaphthalene | | | < 0.2 | | NA | |
| 47 1-Chloronaphthalene | | | < 0.2 | | NA | |
| 48 2-Nitroaniline | | | < 0.2 | | NA | |
| 49 Dimethyl-phthalate | | | < 0.2 | | NA | |
| 50 Acenaphthylene | | | < 0.2 | - 01 | NA | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | | NA | |
| 52 3-Nitroaniline | | | < 0.2 | | NA | |
| 53 Acenaphthene | | | < 0.2 | | NA | |
| 54 2-4-Dinitrophenol | | | < 2.0 | | NA | |
| 55 Dibenzofuran | | | < 0.2 | | NA | |
| 56 4-Nitrophenol | | | < 1.0 | | | RRPD of MS/MSD failed to meet acceptance criteria |
| 57 Pentachlorobenzene | | | < 0.2 | | NA | |
| 58 2-4-Dinitrotoluene | | | < 0.2 | | NA | |
| 59 2-3-4-6-Tetrachloropheno | | | < 0.4 | 0. | | RRPD of MS/MSD failed to meet acceptance criteria |
| 60 Fluorene | | | < 0.2 | | NA | |
| 61 Diethylphthalate | | | < 0.2 | | NA | |
| 62 4-Chlorophenyl-phenyl et | | | < 0.2 | | NA | |
| 63 4-Nitroaniline | | | < 0.2 | | NA | |
| 64 4-6-Dintro-2-methylpheno | | | < 2.0 | 0. | NA | |
| 65 Diphenylamine | | | < 0.2 | | NA | |
| 66 Azobenzene | | | < 0.2 | 0. | NA | |
| 67 4-Bromophenyl-phenyl eth | | | < 0.2 | 0. | NA | |
| 68 Hexachlorobenzene | | | < 0.2 | | NA | |
| 69 Pentachlorophenol | | | < 1.0 | | NA | |
| 70 Pentachloronitrobenzene | | | < 0.2 | ug/L | NA | |
| | | | | | | |

| 71 Pronamide | < 0.2 | ug/L | NA | | |
|---|--|--|------------------------------------|--------------|--|
| 72 Phenanthrene | < 0.2 | ug/L | NA | | |
| 73 Anthracene | < 0.2 | ug/L | NA | | |
| 74 Carbazole | < 0.2 | ug/L | NA | | |
| 75 Di-n-butylphthalate | < 0.2 | ug/L | NA | | |
| 76 Fluoranthene | < 0.2 | ug/L | NA | | |
| 77 Pyrene | < 0.2 | ug/L | NA | | |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L | NA | | |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L | NA | | |
| 80 Benz[a]anthracene | < 0.2 | ug/L | NA | | |
| 81 Chrysene | < 0.2 | ug/L | NA | | |
| | | | | | |
| 82 Bis(2-ethylhexyl) phthal | 0. | 25 ug/L | 13.5 | 0-20 | BPresent in the MB at 0.22 ug/L; Lanalyte failed (high) to recover within acceptance criteria in the LCS; result MAY be biased high |
| 82 Bis(2-ethylhexyl) phthal 83 Di-n-octyl phthalate | 0. < 0.2 | 25 ug/L ug/L | 13.5 0.93 | 0-20 0-20 | BPresent in the MB at 0.22 ug/L; Lanalyte failed (high) to recover within acceptance criteria in the LCS; result MAY be biased high Lanalyte failed (high) to recover within acceptance criteria in the LCS; failure has NO effect on non-detect results |
| | | - | | | |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L | 0.93 | | |
| 83 Di-n-octyl phthalate 84 Benzo[b]fluoranthene | < 0.2 < 0.2 | ug/L ug/L | 0.93 NA | | |
| 83 Di-n-octyl phthalate 84 Benzo[b]fluoranthene 85 Dimethylbenzo(a)anthrace | < 0.2 < 0.2 < 0.2 | ug/L ug/L ug/L | 0.93 NA NA | | |
| 83 Di-n-octyl phthalate 84 Benzo[b]fluoranthene 85 Dimethylbenzo(a)anthrace 86 Benzo(k)fluoranthene | < 0.2 < 0.2 < 0.2 < 0.2 | ug/L ug/L ug/L ug/L | 0.93 NA NA NA | | |
| 83 Di-n-octyl phthalate 84 Benzo[b]fluoranthene 85 Dimethylbenzo(a)anthrace 86 Benzo(k)fluoranthene 87 Benzo(a)pyrene | < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 | ug/L ug/L ug/L ug/L ug/L | 0.93 NA NA NA NA | | |
| 83 Di-n-octyl phthalate 84 Benzo[b]fluoranthene 85 Dimethylbenzo(a)anthrace 86 Benzo(k)fluoranthene 87 Benzo(a)pyrene 88 3-Methylcholanthrene | < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 | ug/L ug/L ug/L ug/L ug/L ug/L | 0.93 NA NA NA NA NA | | |
| 83 Di-n-octyl phthalate 84 Benzo[b]fluoranthene 85 Dimethylbenzo(a)anthrace 86 Benzo(k)fluoranthene 87 Benzo(a)pyrene 83 3-Methylcholanthrene 89 Indeno[1-2-3-cd]pyrene | < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 | ug/L ug/L ug/L ug/L ug/L ug/L ug/L | 0.93 NA NA NA NA NA | | L-analyte failed (high) to recover within acceptance criteria in the LCS; failure has NO effect on non-detect results |

Sample ID: 2018-1702 Operator: Ed Harris

Instrument MS Instrument #1 Last Calibra

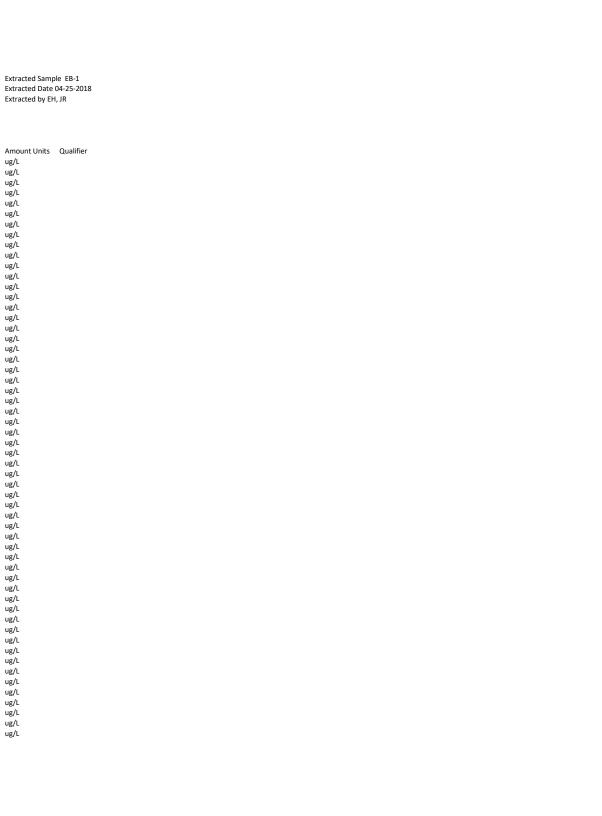
5/23/2018 12:35 Acquisition 5/23/2018 18:59

Target Compounds

| | Acceptance | | Reported | | |
|-----------------------------|-----------------|------------|----------|--------------|-----------|
| Peaks: 91(' Peak Name | Criteria % Rec. | % Recovery | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 15-80 | 40.15 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 50-150 | 91.29 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 50-150 | 86.92 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 50-150 | 62.58 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 50-150 | 104.23 | | ug/L | |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| 53 Acenaphthene | | | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | |
| 55 Dibenzofuran | | | < 0.2 | ug/L | |
| 56 4-Nitrophenol | | | < 1.0 | ug/L | |
| 57 Pentachlorobenzene | | | < 0.2 | ug/L | |
| 58 2-4-Dinitrotoluene | | | < 0.2 | ug/L | |
| 59 2-3-4-6-Tetrachloropheno | | | < 0.4 | ug/L | |
| 60 Fluorene | | | < 0.2 | ug/L | |
| 61 Diethylphthalate | | | < 0.2 | ug/L | |
| 62 4-Chlorophenyl-phenyl et | | | < 0.2 | ug/L | |
| oz i omorophenyi pilenyi et | | | | 6/ | |

Extracted Sample EB-1

Extracted by EH, JR



| 63 | 4-Nitroaniline | < 0.2 | ug/L |
|----|--------------------------|-------|------|
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | 0.23 | ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

B--Present in the MB at 0.22 ug/L; L-analyte failed (high) to meet acceptance criteria in the LCS; result MAY be biased high L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

Sample ID: 2018-1703 Operator: Ed Harris

Operator: Ed Harris
Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/25/2018 12:28

Target Compounds

| Target Compounds | | | | | |
|--|--------------------------|---------------------|----------------|--------------|--|
| Peaks: 91(" Peak Name | Acceptance | 9/ Basayanı | Reported | Amount Units | Qualifiers |
| 7 2-Fluorophenol (Surr.) | Criteria % Rec. 15-80 | % Recovery 42.08 | Result | ug/L | Qualifiers |
| 8 Nitrobenzene-d5 (Surr.) | 50-150 | 56.86 | | ug/L ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 50-150 | 61.28 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 50-150 | 63.35 | | ug/L ug/L | |
| 11 Terphenyl-d14 (Surr.) | 50-150 | 74.63 | | ug/L ug/L | |
| 12 Methyl Methanesulfonate | 30-130 | | < 0.2 | ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | N=N D of Maj Mad falled to fileet acceptance Criteria |
| 14 Phenol | | | < 0.2 | ug/L ug/L | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| 15 Aniline | | | < 0.2 | ug/L | N=N D of MISH falled to friend acceptance Criteria, Mi=analyte falled (low) to recover within fillings in the MIS analyte MISD, result MIST be biased low |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| 17 2-Chlorophenol | | | < 0.2 | ug/L ug/L | N-N-PD OF WIS/WISD falled to fileet acceptance criteria |
| 18 1,3-Dichlorobenzene | | | | | D. D.D EAST (ASD failed to see the secretary principle M. such the failed (I am) to secretary within limited in the MC and (as MCD) and the MCD and |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L ug/L | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| 20 Benzyl Alcohol | | | < 0.2 | - | RRPD of MS/MSD failed to meet acceptance criteria |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L ug/L | KRPD OF MIS/MISD failed to meet acceptance criteria |
| · · · · · · · · · · · · · · · · · · · | | | < 0.2 | | |
| 22 2-Methylphenol 23 4-Methylphenol | | | < 0.2 | ug/L ug/L | |
| 15.5 | | | | | |
| 24 Acetophenone | | | < 0.2 < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | M. analysis failed (law) has an annual visiting limited in the NAC and law NACO, annuals NACO, the binned law. |
| 26 Hexachloroethane | | | | ug/L | Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 < 0.2 | ug/L | |
| 29 Isophorone | | | | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | D DDD of MC/MCD fell of the second control of the file of the second control of the MCD |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | R-RPD of MS/MSD failed to meet acceptance criteria; M-analyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | | ug/L | A COLOR OF THE ACCOUNT OF THE ACCOUN |
| 34 1-2-4-Trichlorobenzene 35 Naphthalene | | | < 0.2 < 0.2 | ug/L | Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| · | | | | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | | ug/L | M. analysis failed (law) has an annual visiting limited in the NAC and law NACO, annuals NACO, the binned law. |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol 41 2-Methylnaphthalene | | | < 0.2 < 0.2 | ug/L ug/L | |
| | | | < 0.2 | | |
| 42 1-2-4-5-Tetrachlorobenze | | | | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 < 0.2 | ug/L | R-RPD of MS/MSD failed to meet acceptance criteria; M-analyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol 46 2-Chloronaphthalene | | | < 0.2 | ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| | | | | ug/L | KRPD OF MIS/MISD failed to meet acceptance criteria |
| 47 1-Chloronaphthalene 48 2-Nitroaniline | | | < 0.2 < 0.2 | ug/L ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L ug/L | |
| 53 Acenaphthene | | | < 0.2 | ug/L ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L ug/L | |
| 55 Dibenzofuran | | | < 0.2 | ug/L | |
| 56 4-Nitrophenol | | | < 1.0 | ug/L ug/L | |
| 57 Pentachlorobenzene | | | < 0.2 | ug/L | |
| 58 2-4-Dinitrotoluene | | | < 0.2 | ug/L ug/L | |
| 59 2-3-4-6-Tetrachloropheno | | | < 0.4 | ug/L ug/L | |
| 60 Fluorene | | | < 0.4 | ug/L ug/L | |
| 61 Diethylphthalate | | | < 0.2 | ug/L ug/L | |
| 62 4-Chlorophenyl-phenyl et | | | < 0.2 | ug/L ug/L | |
| 63 4-Nitroaniline | | | < 0.2 | ug/L ug/L | |
| 64 4-6-Dintro-2-methylpheno | | | < 2.0 | ug/L ug/L | |
| 65 Diphenylamine | | | < 0.2 | ug/L ug/L | |
| 66 Azobenzene | | | < 0.2 | ug/L ug/L | |
| OO AZODEIIZEIIE | | | - 0.2 | ug/L | |

Extracted Sample MW-21S Extracted Date 04-25-2018

Extracted by EH, JR

| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L | |
|----|--------------------------|-------|----------|------------------------|
| 68 | Hexachlorobenzene | < 0.2 | ug/L | |
| 69 | Pentachlorophenol | < 1.0 | ug/L | |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L | |
| 71 | Pronamide | < 0.2 | ug/L | |
| 72 | Phenanthrene | < 0.2 | ug/L | |
| 73 | Anthracene | < 0.2 | ug/L | |
| 74 | Carbazole | < 0.2 | ug/L | |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L | |
| 76 | Fluoranthene | < 0.2 | ug/L | |
| 77 | Pyrene | < 0.2 | ug/L | |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L | |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L | |
| 80 | Benz[a]anthracene | < 0.2 | ug/L | |
| 81 | Chrysene | < 0.2 | ug/L | |
| 82 | Bis(2-ethylhexyl) phthal | | 0.2 ug/L | BPresent in the MB a |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L | Lanalyte failed (high) |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L | |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L | |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L | |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L | |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L | |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L | |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L | Lanalyte failed (high) |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L | |
| | | | | |

--Present in the MB at 0.22 ug/L; L-analyte failed (high) to meet acceptance criteria in the LCS; result MAY be biased high --analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

Sample ID: 2018-1703 Dup Operator: Ed Harris Instrument ID: MS Instrument #1

Last Calibration 5/24/2018 11:27 Acquisition Date 5/25/2018 12:57 Extracted Sample MW-21S Extracted Date 04-25-2018 Extracted by EH, JR

Target Compounds

| | | Acceptance | Reported | | | RPD | A 1/2 |
|---|-----------------------------|-----------------|-------------------|--------------|----------|---------------|--|
| | Peak Name | Criteria % Rec. | % Recovery Result | Amount Units | RPD (%) | Acc. Criteria | Qualifier |
| | 7 2-Fluorophenol (Surr.) | 15-80 | 39.21 | ug/L | | | |
| | 8 Nitrobenzene-d5 (Surr.) | 50-150 | 55.27 | ug/L | | | |
| | 9 2-Fluorobiphenyl (Surr.) | 50-150 | 54.64 | ug/L | | NA target a | ınalyte was Non-detect in the sample and dup |
| | 0 2-4-6-Tribromophenol (Su | 50-150 | 53.23 | ug/L | | | |
| | 1 Terphenyl-d14 (Surr.) | 50-150 | 73.38 | ug/L | | | |
| | 2 Methyl Methanesulfonate | | < 0.2 | ug/L | NA | | RRPD of MS/MSD failed to meet acceptance criteria |
| | 3 Ethyl methanesulfonate | | < 0.2 | ug/L | NA | | |
| 1 | 4 Phenol | | < 0.2 | ug/L | NA | | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased |
| 1 | 5 Aniline | | < 0.2 | ug/L | NA | | |
| 1 | .6 Bis(2-chloroethyl) ether | | < 0.2 | ug/L | NA | | RRPD of MS/MSD failed to meet acceptance criteria |
| 1 | 7 2-Chlorophenol | | < 0.2 | ug/L | NA | | |
| 1 | 8 1,3-Dichlorobenzene | | < 0.2 | ug/L | 12.46 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased |
| 1 | 9 1,4-Dichlorobenzene | | < 0.2 | ug/L | NA | | |
| 2 | 0 Benzyl Alcohol | | < 0.2 | ug/L | NA | | RRPD of MS/MSD failed to meet acceptance criteria |
| 2 | 1 1,2-Dichlorobenzene | | < 0.2 | ug/L | NA | | |
| 2 | 2 2-Methylphenol | | < 0.2 | ug/L | NA | | |
| 2 | 3 4-Methylphenol | | < 0.2 | ug/L | NA | | |
| 2 | 4 Acetophenone | | < 0.2 | ug/L | NA | | |
| 2 | 5 N-Nitroso-di-n-propylami | | < 0.2 | ug/L | NA | | |
| | 6 Hexachloroethane | | < 0.2 | ug/L | NA | | Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| | 7 Nitrobenzene | | < 0.2 | ug/L | NA | | |
| | 8 N-Nitrosopiperidine | | < 0.2 | ug/L | NA | | |
| | 9 Isophorone | | < 0.2 | ug/L | NA | | |
| | 0 2-Nitrophenol | | < 0.4 | ug/L | NA | | |
| | 1 2,4-Dimethylphenol | | < 0.2 | ug/L | NA | | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased |
| | 2 Bis(2-chloroethoxy) meth | | < 0.2 | ug/L | NA | | in the original factor of the content of the conten |
| | 3 2-4-Dichlorophenol | | < 0.2 | ug/L | NA. | | |
| | 4 1-2-4-Trichlorobenzene | | < 0.2 | ug/L ug/L | NA NA | | Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| | 5 Naphthalene | | < 0.2 | ug/L | NA | | We analyse failed flow) to recover within mints in the WS and Or WSS, result with the blased low |
| | 6 4-Chloroaniline | | < 0.2 | ug/L ug/L | NA NA | | |
| | 7 2-6-Dichlorophenol | | < 0.2 | ug/L ug/L | NA NA | | |
| | 8 Hexachlorobutadiene | | < 0.2 | ug/L ug/L | NA NA | | Ad analysis failed (law) to see you within limits in the ASC and (as MCD, south MAY be broad law. |
| | | | | - | | | Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased low |
| | 9 N-Nitrosodibutylamine | | < 0.2 | ug/L | NA | | |
| | 0 4-Chloro-3-methylphenol | | < 0.2 | ug/L | NA | | |
| | 1 2-Methylnaphthalene | | < 0.2 | ug/L | NA | | |
| | 2 1-2-4-5-Tetrachlorobenze | | < 0.2 | ug/L | NA | | |
| | 3 Hexachlorocyclopentadien | | < 0.2 | ug/L | NA | | R-RPD of MS/MSD failed to meet acceptance criteria; Manalyte failed (low) to recover within limits in the MS and/or MSD; result MAY be biased |
| | 4 2,4,6-Trichlorophenol | | < 0.2 | ug/L | NA | | |
| | 5 2,4,5-Trichlorophenol | | < 0.2 | ug/L | NA | | |
| | 6 2-Chloronaphthalene | | < 0.2 | ug/L | NA | | RRPD of MS/MSD failed to meet acceptance criteria |
| | 7 1-Chloronaphthalene | | < 0.2 | ug/L | NA | | |
| | 8 2-Nitroaniline | | < 0.2 | ug/L | NA | | |
| | 9 Dimethyl-phthalate | | < 0.2 | ug/L | NA | | |
| 5 | 0 Acenaphthylene | | < 0.2 | ug/L | NA | | |
| 5 | 1 2-6-Dinitrotoluene | | < 0.2 | ug/L | NA | | |
| 5 | 2 3-Nitroaniline | | < 0.2 | ug/L | NA | | |
| 5 | 3 Acenaphthene | | < 0.2 | ug/L | NA | | |
| 5 | 4 2-4-Dinitrophenol | | < 2.0 | ug/L | NA | | |
| 5 | 5 Dibenzofuran | | < 0.2 | ug/L | NA | | |
| 5 | 6 4-Nitrophenol | | < 1.0 | ug/L | NA | | |
| 5 | 7 Pentachlorobenzene | | < 0.2 | ug/L | NA | | |
| 5 | 8 2-4-Dinitrotoluene | | < 0.2 | ug/L | NA | | |
| | 9 2-3-4-6-Tetrachloropheno | | < 0.4 | ug/L | NA | | |
| | 0 Fluorene | | < 0.2 | ug/L | NA | | |
| | i Diethylphthalate | | < 0.2 | ug/L | NA | | |
| | 2 4-Chlorophenyl-phenyl et | | < 0.2 | ug/L | NA | | |
| | 3 4-Nitroaniline | | < 0.2 | ug/L | NA | | |
| | 4 4-6-Dintro-2-methylpheno | | < 2.0 | ug/L | NA | | |
| | 5 Diphenylamine | | < 0.2 | ug/L | NA. | | |
| | 6 Azobenzene | | < 0.2 | ug/L ug/L | NA NA | | |
| | 7 4-Bromophenyl-phenyl eth | | < 0.2 | ug/L ug/L | NA NA | | |
| | 8 Hexachlorobenzene | | < 0.2 | | NA NA | | |
| | | | | ug/L | NA NA | | |
| | 9 Pentachlorophenol | | < 1.0 | ug/L | | | |
| | O Pentachloronitrobenzene | | < 0.2 | ug/L | NA | | |
| | 1 Pronamide | | < 0.2 | ug/L | NA | | |
| 7 | 2 Phenanthrene | | < 0.2 | ug/L | NA | | |
| _ | | | < 0.2 | ug/L | NA | | |
| | 3 Anthracene 4 Carbazole | | < 0.2 | ug/L | NA | | |

| 75 Di-n-butylphthalate | < 0.2 | ug/L | NA | | |
|-----------------------------|-------|------|------|------|--|
| 76 Fluoranthene | < 0.2 | ug/L | NA | | |
| 77 Pyrene | < 0.2 | ug/L | NA | | |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L | NA | | |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L | NA | | |
| 80 Benz[a]anthracene | < 0.2 | ug/L | NA | | |
| 81 Chrysene | < 0.2 | ug/L | NA | | |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L | 3.94 | 0-20 | Lanalyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L | NA | | Lanalyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L | NA | | |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L | NA | | |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L | NA | | |
| 87 Benzo(a)pyrene | < 0.2 | ug/L | NA | | |
| 88 3-Methylcholanthrene | < 0.2 | ug/L | NA | | |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L | NA | | |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L | NA | | Lanalyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L | NA | | |
| | | | | | |
| | | | | | |

Sample ID: 2018-1704 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/23/2018 12:35 Acquisition 5/23/2018 21:25 Extracted Sample MW-21D Extracted Date 04-25-2018 Extracted by EH, JR

| Target Compounds | Acceptance | | Reporte | d | |
|-----------------------------|-----------------|------------|---------|---------------------|----------|
| Peaks: 91(" Peak Name | Criteria % Rec. | % Recovery | Result | Amount Units | Qualifie |
| 7 2-Fluorophenol (Surr.) | 15-80 | 33.56 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 50-150 | 62.26 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 50-150 | 60.9 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 50-150 | 65.73 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 50-150 | 73.74 | | ug/L | |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | 1 | 21 ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| 53 Acenaphthene | | | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | |
| 55 Dibenzofuran | | | < 0.2 | ug/L | |
| 56 4-Nitrophenol | | | 1 | .4 ug/L | |
| 30 + Milliophichol | | | | . - 46/- | |

| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
|----|--------------------------|-------|---------|
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | 0. | 28 ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

B--Present in the MB at 0.22 ug/L; L--analyte failed (high) to meet acceptance criteria in the LCS; result MAY be biased high L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

Sample ID: 2018-1705 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/23/2018 12:35 Acquisition 5/23/2018 21:55

Target Compounds

| Target Com | | Acceptance | | Reported | | |
|-------------|--------------------------|-----------------|------------|----------|--------------|-----------|
| Peaks: 91(' | Peak Name | Criteria % Rec. | % Recovery | Result | Amount Units | Qualifier |
| 7 | 2-Fluorophenol (Surr.) | 15-80 | 33.86 | | ug/L | |
| 8 | Nitrobenzene-d5 (Surr.) | 50-150 | 59.27 | | ug/L | |
| 9 | 2-Fluorobiphenyl (Surr.) | 50-150 | 58.19 | | ug/L | |
| 10 | 2-4-6-Tribromophenol (Su | 50-150 | 58.78 | | ug/L | |
| 11 | Terphenyl-d14 (Surr.) | 50-150 | 67.64 | | ug/L | |
| 12 | Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 | Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 | Phenol | | | < 0.2 | ug/L | |
| 15 | Aniline | | | < 0.2 | ug/L | |
| 16 | Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 | 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 | 1,3-Dichlorobenzene | | | | ug/L | |
| 19 | 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 | Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 | 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 | 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 | 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 | Acetophenone | | | < 0.2 | ug/L | |
| 25 | N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 | Hexachloroethane | | | < 0.2 | ug/L | |
| 27 | Nitrobenzene | | | < 0.2 | ug/L | |
| 28 | N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 | Isophorone | | | < 0.2 | ug/L | |
| 30 | 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 | 2,4-Dimethylphenol | | | < 0.2 | ug/L | |
| 32 | Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 | 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 | 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 | Naphthalene | | | < 0.2 | ug/L | |
| 36 | 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 | 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 | Hexachlorobutadiene | | | < 0.2 | ug/L | |
| | N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| | 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 | 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 | 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| | Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| | 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| | 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| | 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| | 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| | 2-Nitroaniline | | | < 0.2 | ug/L | |
| | Dimethyl-phthalate | | | < 0.2 | ug/L | |
| | Acenaphthylene | | | < 0.2 | ug/L | |
| | 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| | 3-Nitroaniline | | | < 0.2 | ug/L | |
| | Acenaphthene | | | < 0.2 | ug/L | |
| | 2-4-Dinitrophenol | | | < 2.0 | ug/L | |
| | Dibenzofuran | | | < 0.2 | ug/L | |
| | 4-Nitrophenol | | | < 1.0 | ug/L | |
| | Pentachlorobenzene | | | < 0.2 | ug/L | |
| | 2-4-Dinitrotoluene | | | < 0.2 | ug/L | |
| | 2-3-4-6-Tetrachloropheno | | | < 0.4 | ug/L | |
| | Fluorene | | | < 0.2 | ug/L | |
| 61 | Diethylphthalate | | | < 0.2 | ug/L | |
| | | | | | | |

Extracted Sample EB-3

Extracted by EH, JR

Extracted Date 04-25-2018

| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
|----|--------------------------|-------|--------|
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | 0.2 | 2 ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

B--Present in the MB at 0.22 ug/L; L--analyte failed (high) to meet acceptance criteria in LCS; result MAY be biased high L--analyte failed (high) to meet acceptance criteria in LCS; failure has NO effect on non-detect results

L--analyte failed (high) to meet acceptance criteria in LCS; failure has NO effect on non-detect results

Sample ID: 2018-1706 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/23/2018 12:35 Acquisition 5/23/2018 22:24 Extracted Sample EB-4 Extracted Date 04-25-2018 Extracted by EH, JR

Target Compounds

| 7 2-Fluorophenol (Surr.) 50-150 66.43 ug/L 8 Nitrobenzene d5 (Surr.) 50-150 66.43 ug/L 9 2-Fluorophenol (Surr.) 50-150 68.6 ug/L 10 2-4-6-fribromophenol (Su 50-150 70.24 ug/L 11 Terphenyl-d14 (Surr.) 50-150 85.44 ug/L 12 Methyl Methanesulfonate | | | Acceptance | Reported | | |
|--|----|--------------------------|-----------------|------------------|--------------|-----------|
| 8 Nitrobenzene-d5 (Surr.) 50-150 66.43 ug/L 9 2-Fluroniphenyl (Surr.) 50-150 68.6 ug/L 10 2-4-6-Tribromophenol (Su 50-150 70.24 ug/L 11 Terphenyl-d14 (Surr.) 50-150 85.44 ug/L 12 Methyl Methanesulfonate | | | Criteria % Rec. | % Recoven Result | Amount Units | Qualifier |
| 9 2-Fluorobiphenyl (Surr.) 10 2-4-6-Tribromophenol (Su 10 2-4-6-Tribromophenol (Su 11 Terphenyl-d14 (Surr.) 12 Methyl Methanesulfonate 12 Methyl Methanesulfonate 13 Ethyl methanesulfonate 14 Phenol 15 Aniline 16 Bis(2-chloroethyl) ether 17 2-Chlorophenol 18 13-3-Dichlorobenzene 19 1,4-Dichlorobenzene 10 20 ug/L 19 1,4-Dichlorobenzene 10 20 ug/L 21 1,2-Dichlorobenzene 20 2 ug/L 21 1,2-Dichlorobenzene 20 2 ug/L 22 2-Methylphenol 23 4-Methylphenol 24 Acetophenone 25 N-Nitroso-di-n-propylami 26 Hexachloroethane 27 Nitrobenzene 20 2 ug/L 28 N-Nitrosopiperidine 20 30 -Nitrophenol 20 30 2-Nitrophenol 21 2,4-Dimethylphenol 22 2 ug/L 23 1,4-Dimethylphenol 24 N-Nitrosopiperidine 25 N-Nitrosopiperidine 26 0,2 ug/L 27 Nitrobenzene 20 0,2 ug/L 28 N-Nitrospiperidine 20 0,2 ug/L 29 Isophorone 20 0,2 ug/L 30 32-Nitrophenol 20 0,2 ug/L 31 2,4-Dimethylphenol 20 0,2 ug/L 32 1,2-Dimethylphenol 20 0,2 ug/L 31 2,4-Dimethylphenol 20 0,2 ug/L 20 0,2 ug/L 21 2,4-S-Trichlorobenzene 20 0,2 ug/L 21 2-4-S-Tertachlorobenzene 20 0,2 ug/L 21 2-4-Dichtyl-Dichte | 7 | 2-Fluorophenol (Surr.) | 15-80 | 37.21 | ug/L | |
| 10 2-4-6-Tribromophenol (Su 50-150 70.24 ug/L 11 Terphenyl-d14 (Surr.) 50-150 85.44 ug/L 12 Methyl Methanesulfonate | | | 50-150 | | - | |
| 11 Terphemyl-d14 (Surr.) 50-150 85.44 ug/L 12 Methyl Methanesulfonate | | | 50-150 | | ug/L | |
| 12 Methy Methanesulfonate | 10 | 2-4-6-Tribromophenol (Su | 50-150 | 70.24 | ug/L | |
| 13 Ethyl methanesulfonate | | | 50-150 | | - | |
| 14 Phenol | | | | | ug/L | |
| 15 Aniline | | • | | | ug/L | |
| 16 Bis(2-chlorophenol | | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | | | - | |
| 18 1,3-Dichlorobenzene < 0.2 | | | | | ug/L | |
| 19 1,4-Dichlorobenzene | | · | | | | |
| 20 Benzyl Alcohol | 18 | 1,3-Dichlorobenzene | | | | |
| 21 1,2-Dichlorobenzene < 0.2 | | | | | ug/L | |
| 22 2-Methylphenol <0.2 | 20 | Benzyl Alcohol | | | ug/L | |
| 23 4-Methylphenol | 21 | 1,2-Dichlorobenzene | | < 0.2 | ug/L | |
| 24 Acetophenone < 0.2 | 22 | 2-Methylphenol | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | 23 | 4-Methylphenol | | < 0.2 | ug/L | |
| 26 Hexachloroethane < 0.2 | 24 | Acetophenone | | < 0.2 | ug/L | |
| 27 Nitrobenzene | 25 | N-Nitroso-di-n-propylami | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine < 0.2 | 26 | Hexachloroethane | | < 0.2 | ug/L | |
| 29 sophorone | 27 | Nitrobenzene | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | 28 | N-Nitrosopiperidine | | < 0.2 | ug/L | |
| 31 2,4-Dimethylphenol < 0.2 | 29 | Isophorone | | < 0.2 | ug/L | |
| 32 Bis(2-chloroethoxy) meth < 0.2 | 30 | 2-Nitrophenol | | < 0.4 | ug/L | |
| 33 2-4-Dichlorophenol < 0.2 | 31 | 2,4-Dimethylphenol | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene < 0.2 | 32 | Bis(2-chloroethoxy) meth | | < 0.2 | ug/L | |
| 35 Naphthalene < 0.2 | 33 | 2-4-Dichlorophenol | | < 0.2 | ug/L | |
| 36 4-Chloroaniline < 0.2 | 34 | 1-2-4-Trichlorobenzene | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol < 0.2 | 35 | Naphthalene | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene < 0.2 | 36 | 4-Chloroaniline | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine < 0.2 | 37 | 2-6-Dichlorophenol | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol < 0.2 | 38 | Hexachlorobutadiene | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene < 0.2 | 39 | N-Nitrosodibutylamine | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze < 0.2 | 40 | 4-Chloro-3-methylphenol | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien < 0.2 | 41 | 2-Methylnaphthalene | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol < 0.2 | 42 | 1-2-4-5-Tetrachlorobenze | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol < 0.2 | 43 | Hexachlorocyclopentadien | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene < 0.2 | 44 | 2,4,6-Trichlorophenol | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene < 0.2 | 45 | 2,4,5-Trichlorophenol | | < 0.2 | ug/L | |
| 48 2-Nitroaniline < 0.2 | 46 | 2-Chloronaphthalene | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate < 0.2 ug/L | 47 | 1-Chloronaphthalene | | < 0.2 | ug/L | |
| 50 Acenaphthylene < 0.2 | 48 | 2-Nitroaniline | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene < 0.2 | 49 | Dimethyl-phthalate | | < 0.2 | ug/L | |
| 52 3-Nitroaniline < 0.2 | 50 | Acenaphthylene | | < 0.2 | ug/L | |
| 53 Acenaphthene < 0.2 | 51 | 2-6-Dinitrotoluene | | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol < 2.0 | 52 | 3-Nitroaniline | | < 0.2 | ug/L | |
| 55 Dibenzofuran < 0.2 ug/L | 53 | Acenaphthene | | < 0.2 | ug/L | |
| 56 4-Nitrophenol < 1.0 | 54 | 2-4-Dinitrophenol | | < 2.0 | ug/L | |
| 57 Pentachlorobenzene < 0.2 ug/L | 55 | Dibenzofuran | | < 0.2 | ug/L | |
| 58 2-4-Dinitrotoluene < 0.2 | 56 | 4-Nitrophenol | | < 1.0 | ug/L | |
| 58 2-4-Dinitrotoluene < 0.2 | 57 | Pentachlorobenzene | | < 0.2 | ug/L | |
| 59 2-3-4-6-Tetrachloropheno < 0.4 ug/L | 58 | 2-4-Dinitrotoluene | | < 0.2 | | |
| | 59 | 2-3-4-6-Tetrachloropheno | | < 0.4 | | |
| 00 Tradicite 10.2 ug/L | 60 | Fluorene | | < 0.2 | ug/L | |

| 61 | Diethylphthalate | < 0.2 | ug/L |
|----|--------------------------|-------|-----------|
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | C |).27 ug/L |
| 83 | Di-n-octyl phthalate | | 0.2 ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

B--Present in the MB at 0.22 ug/L; L--analyte failed (high) to meet acceptance criteria in the LCS; result MAY be biased high L--analyte failed (high) to meet acceptance criteria in the LCS; result MAY be biased high

L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

Sample ID: 2018-1708 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/23/2018 12:35 Acquisition 5/23/2018 23:23

| Target | Compounds |
|--------|-----------|
| Idiget | Compounds |

| | Acceptance | | Reported | | |
|-----------------------------|-----------------|------------|----------|--------------|----------|
| Peaks: 91(" Peak Name | Criteria % Rec. | % Recovery | Result | Amount Units | Qualific |
| 7 2-Fluorophenol (Surr.) | 15-80 | 34.9 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 50-150 | 62.4 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 50-150 | 61.6 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 50-150 | 71.5 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 50-150 | 87.9 | | ug/L | |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.4 | ug/L ug/L | |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L ug/L | |
| • | | | | - | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| 53 Acenaphthene | | | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | |
| 55 Dibenzofuran | | | < 0.2 | ug/L | |
| 56 4-Nitrophenol | | | < 1.0 | ug/L | |
| 57 Pentachlorobenzene | | | < 0.2 | ug/L | |
| 58 2-4-Dinitrotoluene | | | < 0.2 | ug/L | |

Extracted Sample MW-16D

Extracted Date 04-25-2018 Extracted by EH, JR

| 5 | 9 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
|---|-----------------------------|-------|------|
| 6 | 60 Fluorene | < 0.2 | ug/L |
| 6 | 1 Diethylphthalate | < 0.2 | ug/L |
| 6 | 2 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 6 | 3 4-Nitroaniline | < 0.2 | ug/L |
| 6 | 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 6 | 5 Diphenylamine | < 0.2 | ug/L |
| 6 | 66 Azobenzene | < 0.2 | ug/L |
| 6 | 7 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 6 | 8 Hexachlorobenzene | < 0.2 | ug/L |
| 6 | 9 Pentachlorophenol | < 1.0 | ug/L |
| 7 | O Pentachloronitrobenzene | < 0.2 | ug/L |
| 7 | '1 Pronamide | < 0.2 | ug/L |
| 7 | 72 Phenanthrene | < 0.2 | ug/L |
| 7 | 73 Anthracene | < 0.2 | ug/L |
| 7 | '4 Carbazole | < 0.2 | ug/L |
| 7 | '5 Di-n-butylphthalate | < 0.2 | ug/L |
| 7 | '6 Fluoranthene | < 0.2 | ug/L |
| 7 | 7 Pyrene | < 0.2 | ug/L |
| 7 | 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 7 | '9 Butylbenzyl phthalate | < 0.2 | ug/L |
| 8 | 30 Benz[a]anthracene | < 0.2 | ug/L |
| 8 | 1 Chrysene | < 0.2 | ug/L |
| 8 | 32 Bis(2-ethylhexyl) phthal | 0.39 | ug/L |
| 8 | 3 Di-n-octyl phthalate | < 0.2 | ug/L |
| 8 | 4 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 8 | 5 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 8 | 6 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 8 | 37 Benzo(a)pyrene | < 0.2 | ug/L |
| 8 | 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 8 | 9 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 9 | 0 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 9 | 1 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

B--Present in the MB at 0.22 ug/L; L--analyte failed (high) to meet acceptance criteria in the LCS; result MAY be biased high L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

L--analyte failed (high) to meet acceptance criteria in the LCS; failure has NO effect on non-detect results

Sample ID: 2018-1701 MS Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/25/2018 11:29

Target Compounds

| rarget Con | ipourius | | Ass Critoria |
|-------------|--------------------------|-----------------|--------------------------|
| Dooks: 01/" | Peak Name | 9/ Posovoru | Acc. Criteria % recovery |
| • | 2-Fluorophenol (Surr.) | % Recovery 49.7 | 15-80 |
| | Nitrobenzene-d5 (Surr.) | 77.2 | 50-150 |
| | 2-Fluorobiphenyl (Surr.) | 77.2 | 50-150 |
| | 2-4-6-Tribromophenol (Su | 73.4 | 50-150 |
| | Terphenyl-d14 (Surr.) | 73.8 91.7 | 50-150 |
| | Methyl Methanesulfonate | 72.6 | 50-150 |
| | Ethyl methanesulfonate | 90.0 | 50-150 |
| | Phenol | 47.2 | 30-130 |
| | Aniline | 29.1 | 50-150 |
| | Bis(2-chloroethyl) ether | 91.8 | 50-150 |
| | 2-Chlorophenol | 77.2 | 30-120 |
| | 1,3-Dichlorobenzene | 61.5 | 50-150 |
| | 1,4-Dichlorobenzene | 69.0 | 50-150 |
| | Benzyl Alcohol | 82.1 | 50-150 |
| | 1,2-Dichlorobenzene | 68.6 | 50-150 |
| | 2-Methylphenol | 76.4 | 30-120 |
| | 4-Methylphenol | 69.4 | 30-120 |
| | Acetophenone | 78.0 | 50-150 |
| | N-Nitroso-di-n-propylami | 82.8 | 50-150 |
| | Hexachloroethane | 58.4 | 50-150 |
| 27 | Nitrobenzene | 80.7 | 50-150 |
| 28 | N-Nitrosopiperidine | 99.8 | 50-150 |
| 29 | Isophorone | 85.4 | 50-150 |
| 30 | 2-Nitrophenol | 81.0 | 30-120 |
| 31 | 2,4-Dimethylphenol | 63.5 | 30-120 |
| 32 | Bis(2-chloroethoxy) meth | 77.9 | 50-150 |
| 33 | 2-4-Dichlorophenol | 76.8 | 30-120 |
| 34 | 1-2-4-Trichlorobenzene | 68.2 | 50-150 |
| 35 | Naphthalene | 75.1 | 50-150 |
| 36 | 4-Chloroaniline | 52.3 | 50-150 |
| 37 | 2-6-Dichlorophenol | 79.5 | 30-120 |
| 38 | Hexachlorobutadiene | 57.5 | 50-150 |
| 39 | N-Nitrosodibutylamine | 89.4 | 50-150 |
| 40 | 4-Chloro-3-methylphenol | 84.2 | 30-120 |
| | 2-Methylnaphthalene | 79.6 | 50-150 |
| 42 | 1-2-4-5-Tetrachlorobenze | 71.2 | 50-150 |
| | Hexachlorocyclopentadien | 72.3 | 50-150 |
| 44 | 2,4,6-Trichlorophenol | 89.2 | 30-120 |
| | | | |

Extracted Sample MW-23 Spike Extracted Date 04-25-2018 Extracted by EH, JR

Qualifier

M--Analyte failed to meet acceptance criteria for MS/MSD recovery

| 45 | 2,4,5-Trichlorophenol | 89.4 | 30-120 |
|----|--------------------------|--------------|--------|
| 46 | 2-Chloronaphthalene | 81.4 | 50-150 |
| 47 | 1-Chloronaphthalene | 83.8 | 50-150 |
| 48 | 2-Nitroaniline | 95.0 | 50-150 |
| 49 | Dimethyl-phthalate | 91.6 | 50-150 |
| 50 | Acenaphthylene | 83.6 | 50-150 |
| | 2-6-Dinitrotoluene | 90.5 | 50-150 |
| | 3-Nitroaniline | 68.9 | 50-150 |
| | Acenaphthene | 86.1 | 50-150 |
| | 2-4-Dinitrophenol | 100.6 | 30-120 |
| | Dibenzofuran | 89.3 | 50-150 |
| | 4-Nitrophenol | 82.6 | 30-120 |
| | Pentachlorobenzene | 79.8 | 50-120 |
| | 2-4-Dinitrotoluene | 97.6 | 50-150 |
| | 2-3-4-6-Tetrachloropheno | 186.2 | 30-130 |
| | Fluorene | 92.1 | 50-120 |
| | | 92.1 89.3 | 50-150 |
| | Diethylphthalate | | |
| | 4-Chlorophenyl-phenyl et | 85.5 | 50-150 |
| | 4-Nitroaniline | 67.5 | 50-150 |
| | 4-6-Dintro-2-methylpheno | 96.9 | 30-120 |
| | Diphenylamine | 75.9 | 50-150 |
| | Azobenzene | 78.5 | 50-150 |
| | 4-Bromophenyl-phenyl eth | 76.9 | 50-150 |
| | Hexachlorobenzene | 80.6 | 50-150 |
| 69 | Pentachlorophenol | 83.5 | 30-120 |
| 70 | Pentachloronitrobenzene | 79.1 | 50-150 |
| 71 | Pronamide | 98.2 | 50-150 |
| 72 | Phenanthrene | 84.1 | 50-150 |
| 73 | Anthracene | 79.2 | 50-150 |
| 74 | Carbazole | 78.1 | 50-150 |
| 75 | Di-n-butylphthalate | 80.7 | 50-150 |
| 76 | Fluoranthene | 84.7 | 50-150 |
| 77 | Pyrene | 85.8 | 50-150 |
| 78 | Dimethylaminoazobenzene | 113.3 | 50-150 |
| 79 | Butylbenzyl phthalate | 126.1 | 50-150 |
| 80 | Benz[a]anthracene | 121.3 | 50-150 |
| 81 | Chrysene | 115.2 | 50-150 |
| 82 | Bis(2-ethylhexyl) phthal | 107.8 | 50-150 |
| | Di-n-octyl phthalate | 144.0 | 50-150 |
| | Benzo[b]fluoranthene | 146.5 | 50-150 |
| | Dimethylbenzo(a)anthrace | 95.9 | 50-150 |
| | Benzo(k)fluoranthene | 121.5 | 50-150 |
| | Benzo(a)pyrene | 107.9 | 50-150 |
| | 3-Methylcholanthrene | 110.6 | 50-150 |
| | Indeno[1-2-3-cd]pyrene | 108.6 | 50-150 |
| | Dibenz(a-h)anthracene | 111.2 | 50-150 |
| | Benzo(ghi)perylene | 100.8 | 50-150 |
| - | 2520(Bin/ber/liene | 100.0 | 30 130 |
| | | | |

R--RPD of MS/MSD failed to meet acceptance criteria

R--RPD of MS/MSD failed to meet acceptance criteria

Sample ID: 2018-1701 MSD

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/25/2018 11:59

44 2,4,6-Trichlorophenol

Extracted Sample MW-23 Plus Spike

Qualifier

Extracted Date 04-25-2018 Extracted by EH, JR

| Target Con | npounas | | | Acc. Criteria | RPD Criteri |
|-----------------|--------------------------|------------|---------|---------------|----------------|
| Peaks: 91(" | Peak Name | % Recovery | RPD (%) | % recovery | Citteri |
| | 2-Fluorophenol (Surr.) | 47.43 | 2 (/0/ | 15-80 | 0-20 |
| | Nitrobenzene-d5 (Surr.) | 80.22 | | 50-150 | 0-20 |
| | 2-Fluorobiphenyl (Surr.) | 67.26 | | 50-150 | 0-20 |
| | 2-4-6-Tribromophenol (Su | 69.57 | | 50-150 | 0-20 |
| | Terphenyl-d14 (Surr.) | 90.69 | | 50-150 | 0-20 |
| | Methyl Methanesulfonate | 71.54 | 1.53 | | 0-20 |
| | Ethyl methanesulfonate | 83.47 | 7.48 | 50-150 | 0-20 |
| | Phenol | 54.76 | 14.85 | 30-120 | 0-20 |
| 15 | Aniline | 25.12 | 14.76 | 50-150 | 0-20 |
| 16 | Bis(2-chloroethyl) ether | 80.95 | 12.59 | 50-150 | 0-20 |
| | 2-Chlorophenol | 73.15 | 5.39 | 30-120 | 0-20 |
| 18 | 1,3-Dichlorobenzene | 55.88 | 9.65 | 50-150 | 0-20 |
| 19 | 1,4-Dichlorobenzene | 62.46 | 10 | 50-150 | 0-20 |
| 20 | Benzyl Alcohol | 78.56 | 4.41 | 50-150 | 0-20 |
| 21 | 1,2-Dichlorobenzene | 65.13 | 5.14 | 50-150 | 0-20 |
| 22 | 2-Methylphenol | 71.56 | 6.49 | 30-120 | 0-20 |
| 23 | 4-Methylphenol | 65.54 | 5.66 | 30-120 | 0-20 |
| 24 | Acetophenone | 81.73 | 4.63 | 50-150 | 0-20 |
| 25 | N-Nitroso-di-n-propylami | 87.77 | 5.84 | 50-150 | 0-20 |
| 26 | Hexachloroethane | 58.4 | 0.01 | 50-150 | 0-20 |
| 27 | Nitrobenzene | 83.72 | 3.73 | 50-150 | 0-20 |
| 28 | N-Nitrosopiperidine | 103.8 | 3.91 | 50-150 | 0-20 |
| 29 | Isophorone | 90.41 | 5.68 | 50-150 | 0-20 |
| 30 | 2-Nitrophenol | 86.76 | 6.91 | 30-120 | 0-20 |
| 31 | 2,4-Dimethylphenol | 64.79 | 2.03 | 30-120 | 0-20 |
| 32 | Bis(2-chloroethoxy) meth | 79.14 | 1.54 | 50-150 | 0-20 |
| 33 | 2-4-Dichlorophenol | 80.01 | 4.04 | 30-120 | 0-20 |
| 34 | 1-2-4-Trichlorobenzene | 70.01 | 2.64 | 50-150 | 0-20 |
| 35 | Naphthalene | 78.43 | 4.33 | 50-150 | 0-20 |
| 36 | 4-Chloroaniline | 51.87 | 0.84 | 50-150 | 0-20 |
| 37 | 2-6-Dichlorophenol | 80.99 | 1.85 | 30-120 | 0-20 |
| | Hexachlorobutadiene | 60.59 | 5.23 | | 0-20 |
| | N-Nitrosodibutylamine | 91.04 | 1.82 | | 0-20 |
| | 4-Chloro-3-methylphenol | 86.1 | 2.18 | 30-120 | 0-20 |
| 41 | 2-Methylnaphthalene | 80.71 | 1.4 | 50-150 | 0-20 |
| | 1-2-4-5-Tetrachlorobenze | 67.57 | | | 0-20 |
| 43 | Hexachlorocyclopentadien | 70.23 | 2.93 | 50-150 | 0-20 |
| | | | | | |

83.45

6.67

30-120

0-20

M--Analyte failed to meet acceptance criteria for MS/MSD recovery

| 45 2,4,5-Trichlorophenol | 84.44 | 5.69 | 30-120 | 0-20 |
|-----------------------------|--------|-------|--------|------|
| 46 2-Chloronaphthalene | 76.21 | 6.64 | 50-150 | 0-20 |
| 47 1-Chloronaphthalene | 78.06 | 7.12 | 50-150 | 0-20 |
| 48 2-Nitroaniline | 86.91 | 8.91 | 50-150 | 0-20 |
| 49 Dimethyl-phthalate | 85.8 | 6.53 | 50-150 | 0-20 |
| 50 Acenaphthylene | 77.41 | 7.68 | 50-150 | 0-20 |
| 51 2-6-Dinitrotoluene | 82.95 | 8.75 | 50-150 | 0-20 |
| 52 3-Nitroaniline | 59.09 | 15.27 | 50-150 | 0-20 |
| 53 Acenaphthene | 80.15 | 7.14 | 50-150 | 0-20 |
| 54 2-4-Dinitrophenol | 99.9 | 0.68 | 30-120 | 0-20 |
| 55 Dibenzofuran | 85.76 | 4.03 | 50-150 | 0-20 |
| 56 4-Nitrophenol | 64.95 | 23.87 | 30-120 | 0-20 |
| 57 Pentachlorobenzene | 74.04 | 7.45 | 50-150 | 0-20 |
| 58 2-4-Dinitrotoluene | 88.27 | 10.06 | 50-150 | 0-20 |
| 59 2-3-4-6-Tetrachloropheno | 82.7 | 76.96 | 30-130 | 0-20 |
| 60 Fluorene | 86.54 | 6.23 | 50-120 | 0-20 |
| | | | | |
| 61 Diethylphthalate | 83.85 | 6.34 | 50-150 | 0-20 |
| 62 4-Chlorophenyl-phenyl et | 78.9 | 8.06 | 50-150 | 0-20 |
| 63 4-Nitroaniline | 58.37 | 14.51 | 50-150 | 0-20 |
| 64 4-6-Dintro-2-methylpheno | 94.25 | 2.73 | 30-120 | 0-20 |
| 65 Diphenylamine | 75.43 | 0.67 | 50-150 | 0-20 |
| 66 Azobenzene | 81.38 | 3.55 | 50-150 | 0-20 |
| 67 4-Bromophenyl-phenyl eth | 78.62 | 2.15 | 50-150 | 0-20 |
| 68 Hexachlorobenzene | 79.15 | 1.85 | 50-150 | 0-20 |
| 69 Pentachlorophenol | 84.71 | 1.48 | 30-120 | 0-20 |
| 70 Pentachloronitrobenzene | 76.8 | 2.91 | 50-150 | 0-20 |
| 71 Pronamide | 86.17 | 13.04 | 50-150 | 0-20 |
| 72 Phenanthrene | 80.75 | 4.04 | 50-150 | 0-20 |
| 73 Anthracene | 78.8 | 0.49 | 50-150 | 0-20 |
| 74 Carbazole | 78.6 | 0.61 | 50-150 | 0-20 |
| 75 Di-n-butylphthalate | 75.25 | 6.97 | 50-150 | 0-20 |
| 76 Fluoranthene | 79.01 | 6.93 | 50-150 | 0-20 |
| 77 Pyrene | 85.48 | 0.35 | 50-150 | 0-20 |
| 78 Dimethylaminoazobenzene | 115.76 | 2.12 | 50-150 | 0-20 |
| 79 Butylbenzyl phthalate | 130.98 | 3.78 | 50-150 | 0-20 |
| 80 Benz[a]anthracene | 123.48 | 1.8 | 50-150 | 0-20 |
| 81 Chrysene | 119.63 | 3.75 | 50-150 | 0-20 |
| 82 Bis(2-ethylhexyl) phthal | 111.9 | 3.7 | 50-150 | 0-20 |
| 83 Di-n-octyl phthalate | 152.82 | 5.97 | 50-150 | 0-20 |
| 84 Benzo[b]fluoranthene | 146.08 | 0.27 | 50-150 | 0-20 |
| 85 Dimethylbenzo(a)anthrace | 99.56 | 3.77 | 50-150 | 0-20 |
| 86 Benzo(k)fluoranthene | 115.21 | 5.28 | 50-150 | 0-20 |
| • • | | 5.28 | | 0-20 |
| 87 Benzo(a)pyrene | 113.82 | | 50-150 | |
| 88 3-Methylcholanthrene | 118.6 | 6.99 | 50-150 | 0-20 |
| 89 Indeno[1-2-3-cd]pyrene | 110.98 | 2.15 | 50-150 | 0-20 |
| 90 Dibenz(a-h)anthracene | 113.51 | 2.06 | 50-150 | 0-20 |
| 91 Benzo(ghi)perylene | 101.37 | 0.55 | 50-150 | 0-20 |
| | | | | |

R--RPD of MS/MSD failed to meet acceptance criteria

R--RPD of MS/MSD failed to meet acceptance criteria

Sample ID: 2018-1703 MS Operator: Ed Harris Extracted Sample MW-21S Plus Spike
Extracted Date 04-25-2018
Extracted by EH, JR

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/25/2018 13:27

Target Compounds

| | | Acceptance | |
|-----------------------------|------------|-----------------|---|
| Peaks: 91(" Peak Name | % Recovery | Criteria % Rec. | Qualifier |
| 7 2-Fluorophenol (Surr.) | 48.06 | 15-80 | |
| 8 Nitrobenzene-d5 (Surr.) | 70.12 | 50-150 | |
| 9 2-Fluorobiphenyl (Surr.) | 62.11 | 50-150 | |
| 10 2-4-6-Tribromophenol (Su | 68.35 | 50-150 | |
| 11 Terphenyl-d14 (Surr.) | 79.86 | 50-150 | |
| 12 Methyl Methanesulfonate | 66.49 | 50-150 | RRPD of MS/MSD failed to meet acceptance criteria |
| 13 Ethyl methanesulfonate | 78.61 | 50-150 | |
| 14 Phenol | 35.54 | 30-120 | RRPD of MS/MSD failed to meet acceptance criteria |
| 15 Aniline | 41.83 | 50-150 | |
| 16 Bis(2-chloroethyl) ether | 78.18 | 50-150 | RRPD of MS/MSD failed to meet acceptance criteria |
| 17 2-Chlorophenol | 64.72 | 30-120 | |
| 18 1,3-Dichlorobenzene | 147.85 | 50-150 | RRPD of MS/MSD failed to meet acceptance criteria |
| 19 1,4-Dichlorobenzene | 56.49 | 50-150 | |
| 20 Benzyl Alcohol | 82.74 | 50-150 | RRPD of MS/MSD failed to meet acceptance criteria |
| 21 1,2-Dichlorobenzene | 62.15 | 50-150 | |
| 22 2-Methylphenol | 58.24 | 30-120 | |
| 23 4-Methylphenol | 50.9 | 30-120 | |
| 24 Acetophenone | 72.05 | 50-150 | |
| 25 N-Nitroso-di-n-propylami | 76.47 | 50-150 | |
| 26 Hexachloroethane | 51.22 | 50-150 | |
| 27 Nitrobenzene | 68.7 | 50-150 | |
| 28 N-Nitrosopiperidine | 89.38 | 50-150 | |
| 29 Isophorone | 75.56 | 50-150 | |
| 30 2-Nitrophenol | 76.97 | 30-120 | |
| 31 2,4-Dimethylphenol | 22.08 | 30-120 | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed to recover within limits in the MS/MSD |
| 32 Bis(2-chloroethoxy) meth | 72.57 | 50-150 | |
| 33 2-4-Dichlorophenol | 70.27 | 30-120 | |
| 34 1-2-4-Trichlorobenzene | 63.84 | 50-150 | |
| 35 Naphthalene | 70.82 | 50-150 | |
| 36 4-Chloroaniline | 55.06 | 50-150 | |
| 37 2-6-Dichlorophenol | 71.9 | 30-120 | |
| 38 Hexachlorobutadiene | 50.54 | 50-150 | |
| 39 N-Nitrosodibutylamine | 73.48 | 50-150 | |
| 40 4-Chloro-3-methylphenol | 66.36 | 30-120 | |
| 41 2-Methylnaphthalene | 68.33 | 50-150 | |
| 42 1-2-4-5-Tetrachlorobenze | 62.32 | 50-150 | |
| 43 Hexachlorocyclopentadien | 56.6 | 50-150 | RRPD of MS/MSD failed to meet acceptance criteria |
| 44 2,4,6-Trichlorophenol | 71.34 | 30-120 | |
| 45 2,4,5-Trichlorophenol | 70.25 | 30-120 | |
| 46 2-Chloronaphthalene | 74.33 | 50-150 | RRPD of MS/MSD failed to meet acceptance criteria |

| 47 1-Chloronaphthalene | 68.41 | 50-150 |
|-----------------------------|--------|--------|
| 48 2-Nitroaniline | 75.88 | 50-150 |
| 49 Dimethyl-phthalate | 76.7 | 50-150 |
| 50 Acenaphthylene | 73.32 | 50-150 |
| 51 2-6-Dinitrotoluene | 75.51 | 50-150 |
| 52 3-Nitroaniline | 66.23 | 50-150 |
| 53 Acenaphthene | 69.99 | 50-150 |
| 54 2-4-Dinitrophenol | 80.38 | 30-120 |
| 55 Dibenzofuran | 71.35 | 50-150 |
| 56 4-Nitrophenol | 48.1 | 30-120 |
| 57 Pentachlorobenzene | 65.03 | 50-150 |
| 58 2-4-Dinitrotoluene | 71.48 | 50-150 |
| 59 2-3-4-6-Tetrachloropheno | 73.1 | 30-120 |
| 60 Fluorene | 72.39 | 50-150 |
| 61 Diethylphthalate | 74.49 | 50-150 |
| 62 4-Chlorophenyl-phenyl et | 67.85 | 50-150 |
| 63 4-Nitroaniline | 59.28 | 50-150 |
| 64 4-6-Dintro-2-methylpheno | 72.79 | 30-120 |
| 65 Diphenylamine | 67.42 | 50-150 |
| 66 Azobenzene | 67.31 | 50-150 |
| 67 4-Bromophenyl-phenyl eth | 66.81 | 50-150 |
| 68 Hexachlorobenzene | 67.97 | 50-150 |
| 69 Pentachlorophenol | 77.73 | 30-120 |
| 70 Pentachloronitrobenzene | 65.49 | 50-150 |
| 71 Pronamide | 78.63 | 50-150 |
| 72 Phenanthrene | 66.8 | 50-150 |
| 73 Anthracene | 66.05 | 50-150 |
| 74 Carbazole | 66.45 | 50-150 |
| 75 Di-n-butylphthalate | 80.14 | 50-150 |
| 76 Fluoranthene | 73.56 | 50-150 |
| 77 Pyrene | 75.8 | 50-150 |
| 78 Dimethylaminoazobenzene | 103.98 | 50-150 |
| 79 Butylbenzyl phthalate | 119.9 | 50-150 |
| 80 Benz[a]anthracene | 111.83 | 50-150 |
| 81 Chrysene | 111.95 | 50-150 |
| 82 Bis(2-ethylhexyl) phthal | 130.12 | 50-150 |
| 83 Di-n-octyl phthalate | 135.85 | 50-150 |
| 84 Benzo[b]fluoranthene | 111.17 | 50-150 |
| 85 Dimethylbenzo(a)anthrace | 99.83 | 50-150 |
| 86 Benzo(k)fluoranthene | 98.36 | 50-150 |
| 87 Benzo(a)pyrene | 99.27 | 50-150 |
| 88 3-Methylcholanthrene | 90.36 | 50-150 |
| 89 Indeno[1-2-3-cd]pyrene | 92.55 | 50-150 |
| 90 Dibenz(a-h)anthracene | 92.73 | 50-150 |
| 91 Benzo(ghi)perylene | 87.85 | 50-150 |
| | | |

Sample ID: 2018-1703 MSD

Operator: Ed Harris Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/25/2018 13:56 Extracted Sample MW-21S Plus Spike

Extracted Date 04-25-2018 Extracted by EH, JR

| Target Compounds | | | | RPD | |
|-----------------------------|------------|-----------------|---------------|----------|--|
| | | | Acc. Criteria | Criteria | |
| Peaks: 91(" Peak Name | % Recovery | RPD (%) | % recovery | | Qualifier |
| 7 2-Fluorophenol (Surr.) | | 42 | 15-80 | 0-20 | |
| 8 Nitrobenzene-d5 (Surr.) | | 0.8 | 50-150 | 0-20 | |
| 9 2-Fluorobiphenyl (Surr.) | | 1.7 | 50-150 | 0-20 | |
| 10 2-4-6-Tribromophenol (Su | | 0.9 | 50-150 | 0-20 | |
| 11 Terphenyl-d14 (Surr.) | | 1.6 | 50-150 | 0-20 | |
| 12 Methyl Methanesulfonate | 5 | 3.6 21 . | 50-150 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria |
| 13 Ethyl methanesulfonate | 6 | 5.7 17. | 50-150 | 0-20 | |
| 14 Phenol | 2 | 8.0 21. | 30-120 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed to recover within limits in the MS and/or MSD |
| 15 Aniline | 3 | 5.4 13. | 1 50-150 | 0-20 | |
| 16 Bis(2-chloroethyl) ether | ϵ | 2.3 22. | 50-150 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria |
| 17 2-Chlorophenol | 5 | 6.6 13. | 30-120 | 0-20 | |
| 18 1,3-Dichlorobenzene | 3 | 8.9 47. | 50-150 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed to recover within limits in the MS and/or MSD |
| 19 1,4-Dichlorobenzene | 4 | 8.6 15. | 50-150 | 0-20 | |
| 20 Benzyl Alcohol | 5 | 7.0 24. | 50-150 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria |
| 21 1,2-Dichlorobenzene | 5 | 1.6 18. | 5 50-150 | 0-20 | |
| 22 2-Methylphenol | 5 | 4.3 7. | 30-120 | 0-20 | |
| 23 4-Methylphenol | 4 | 7.7 6. | 30-120 | 0-20 | |
| 24 Acetophenone | 6 | 4.4 11. | 2 50-150 | 0-20 | |
| 25 N-Nitroso-di-n-propylami | 6 | 8.7 10. | 3 50-150 | 0-20 | |
| 26 Hexachloroethane | 4 | 4.8 13.4 | 50-150 | 0-20 | Manalyte failed to recover within limits in the MS and/or MSD |
| 27 Nitrobenzene | ϵ | 3.6 7. | 5 50-150 | 0-20 | |
| 28 N-Nitrosopiperidine | 8 | 1.3 9. | 5 50-150 | 0-20 | |
| 29 Isophorone | 6 | 7.8 10. | 3 50-150 | 0-20 | |
| 30 2-Nitrophenol | ϵ | 6.7 14. | 30-120 | 0-20 | |
| 31 2,4-Dimethylphenol | 3 | 7.6 52. | 30-120 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria; Manalyte failed to recover within limits in the MS and/or MSD |
| 32 Bis(2-chloroethoxy) meth | ϵ | 2.4 10. | 3 50-150 | 0-20 | |
| 33 2-4-Dichlorophenol | ϵ | 4.1 6. | 30-120 | 0-20 | |
| 34 1-2-4-Trichlorobenzene | 5 | 4.8 15. | 2 50-150 | 0-20 | Manalyte failed to recover within limits in the MS and/or MSD |
| 35 Naphthalene | ϵ | 0.8 15. | 2 50-150 | 0-20 | |
| 36 4-Chloroaniline | 5 | 1.2 7. | 2 50-150 | 0-20 | |
| 37 2-6-Dichlorophenol | 6 | 7.9 5. | 30-120 | 0-20 | |
| 38 Hexachlorobutadiene | 4 | 2.5 17. | | 0-20 | Manalyte failed to recover within limits in the MS and/or MSD |
| 39 N-Nitrosodibutylamine | 6 | 4.6 12. | 9 50-150 | 0-20 | |
| 40 4-Chloro-3-methylphenol | 6 | 8.1 2. | 30-120 | 0-20 | |
| 41 2-Methylnaphthalene | 5 | 9.5 13. | 9 50-150 | 0-20 | |
| 42 1-2-4-5-Tetrachlorobenze | 5 | 1.1 19. | 3 50-150 | 0-20 | |
| 43 Hexachlorocyclopentadien | | 1.3 31. | | 0-20 | R-RPD of MS/MSD failed to meet acceptance criteria; M-analyte failed to recover within limits in the MS and/or MSD |
| 44 2,4,6-Trichlorophenol | | 2.4 13. | | 0-20 | |
| 45 2,4,5-Trichlorophenol | | 6.7 5. | | 0-20 | |
| 46 2-Chloronaphthalene | | 8.7 23. | | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria |
| 47 1-Chloronaphthalene | | 9.6 13. | | 0-20 | |
| 48 2-Nitroaniline | | 8.4 10. | | 0-20 | |
| 49 Dimethyl-phthalate | | 6.7 14. | | 0-20 | |
| 50 Acenaphthylene | | 0.7 18. | | 0-20 | |
| 51 2-6-Dinitrotoluene | | 7.1 11. | | 0-20 | |

| 52 | 3-Nitroaniline | 64.8 | 2.1 | 50-150 | 0-20 |
|----|--------------------------|-------|------|--------|------|
| 53 | Acenaphthene | 62.2 | 11.8 | 50-150 | 0-20 |
| 54 | 2-4-Dinitrophenol | 68.5 | 15.9 | 30-120 | 0-20 |
| 55 | Dibenzofuran | 61.6 | 14.7 | 50-150 | 0-20 |
| 56 | 4-Nitrophenol | 44.2 | 8.4 | 30-120 | 0-20 |
| 57 | Pentachlorobenzene | 56.6 | 13.8 | 50-150 | 0-20 |
| 58 | 2-4-Dinitrotoluene | 68.3 | 4.5 | 50-150 | 0-20 |
| 59 | 2-3-4-6-Tetrachloropheno | 70.8 | 3.2 | 30-120 | 0-20 |
| 60 | Fluorene | 69.1 | 4.6 | 50-150 | 0-20 |
| 61 | Diethylphthalate | 72.5 | 2.8 | 50-150 | 0-20 |
| 62 | 4-Chlorophenyl-phenyl et | 61.2 | 10.3 | 50-150 | 0-20 |
| 63 | 4-Nitroaniline | 59.9 | 1.0 | 50-150 | 0-20 |
| 64 | 4-6-Dintro-2-methylpheno | 67.0 | 8.2 | 30-120 | 0-20 |
| 65 | Diphenylamine | 62.6 | 7.4 | 50-150 | 0-20 |
| 66 | Azobenzene | 57.6 | 15.5 | 50-150 | 0-20 |
| 67 | 4-Bromophenyl-phenyl eth | 61.4 | 8.4 | 50-150 | 0-20 |
| 68 | Hexachlorobenzene | 64.6 | 5.1 | 50-150 | 0-20 |
| 69 | Pentachlorophenol | 74.7 | 4.0 | 30-120 | 0-20 |
| 70 | Pentachloronitrobenzene | 67.9 | 3.6 | 50-150 | 0-20 |
| 71 | Pronamide | 76.0 | 3.4 | 50-150 | 0-20 |
| 72 | Phenanthrene | 65.8 | 1.5 | 50-150 | 0-20 |
| 73 | Anthracene | 63.0 | 4.8 | 50-150 | 0-20 |
| 74 | Carbazole | 66.0 | 0.6 | 50-150 | 0-20 |
| 75 | Di-n-butylphthalate | 73.6 | 0.9 | 50-150 | 0-20 |
| 76 | Fluoranthene | 75.6 | 2.8 | 50-150 | 0-20 |
| 77 | Pyrene | 67.7 | 11.3 | 50-150 | 0-20 |
| 78 | Dimethylaminoazobenzene | 93.0 | 11.1 | 50-150 | 0-20 |
| 79 | Butylbenzyl phthalate | 115.2 | 4.0 | 50-150 | 0-20 |
| 80 | Benz[a]anthracene | 109.9 | 1.7 | 50-150 | 0-20 |
| 81 | Chrysene | 107.8 | 3.8 | 50-150 | 0-20 |
| 82 | Bis(2-ethylhexyl) phthal | 114.3 | 1.1 | 50-150 | 0-20 |
| 83 | Di-n-octyl phthalate | 122.8 | 1.6 | 50-150 | 0-20 |
| 84 | Benzo[b]fluoranthene | 112.3 | 1.0 | 50-150 | 0-20 |
| 85 | Dimethylbenzo(a)anthrace | 97.3 | 2.6 | 50-150 | 0-20 |
| 86 | Benzo(k)fluoranthene | 113.1 | 13.9 | 50-150 | 0-20 |
| 87 | Benzo(a)pyrene | 103.5 | 4.2 | 50-150 | 0-20 |
| 88 | 3-Methylcholanthrene | 94.4 | 4.3 | 50-150 | 0-20 |
| 89 | Indeno[1-2-3-cd]pyrene | 94.7 | 2.3 | 50-150 | 0-20 |
| 90 | Dibenz(a-h)anthracene | 97.6 | 5.1 | 50-150 | 0-20 |
| 91 | Benzo(ghi)perylene | 89.8 | 2.2 | 50-150 | 0-20 |
| | | | | | |

Sample ID: Extracted MB 4-25-18

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/23/2018 12:35 Acquisition 5/23/2018 15:04

Target Compounds

| | | Reporte | d | |
|-----------------------------|----------------------|-------------------|--------------|-----------|
| Peaks: 91(" Peak Name | Acc. Criteria % Rec. | % Recovery Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 15-80 | 59.7 | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 50-150 | 95.67 | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 50-150 | 86.07 | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 50-150 | 78.51 | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 50-150 | 120.63 | ug/L | |
| 12 Methyl Methanesulfonate | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | < 0.2 | ug/L | |
| 14 Phenol | | < 0.2 | ug/L | |
| 15 Aniline | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | < 0.2 | ug/L | |
| 19 1,4-Dichlorobenzene | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | < 0.2 | ug/L | |
| 24 Acetophenone | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | < 0.2 | ug/L | |
| 29 Isophorone | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | < 0.2 | ug/L | |
| 32 Bis(2-chloroethoxy) meth | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | < 0.2 | ug/L | |
| 35 Naphthalene | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | < 0.2 | ug/L | |
| | | | | |

Extracted Method Blank

Extracted by EH, JR

Extracted Date 04-25-2018

| 49 | Dimethyl-phthalate | < 0.2 | ug/L |
|----|--------------------------|-------|-----------|
| 50 | Acenaphthylene | < 0.2 | ug/L |
| 51 | 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 | 3-Nitroaniline | < 0.2 | ug/L |
| 53 | Acenaphthene | < 0.2 | ug/L |
| 54 | 2-4-Dinitrophenol | < 2.4 | ug/L |
| 55 | Dibenzofuran | < 0.2 | ug/L |
| 56 | 4-Nitrophenol | < 1.2 | ug/L |
| 57 | Pentachlorobenzene | < 0.2 | ug/L |
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.4 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | | 0.54 ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | | 0.22 ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

B = Target analyte present in Method Blank; any positive results for this analyte will be qualified by "B"

B = Target analyte present in Method Blank; any positive results for this analyte will be qualified by "B"

Sample ID: Extracted LCS 4-25-18

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/23/2018 12:35 Acquisition 5/23/2018 16:02

Target Compounds

| | | А | .cc. Criteri | |
|-----------------------------|------------|-------|--------------|-----------|
| Peaks: 91(" Peak Name | % Recovery | % | 6 Rec. | Qualifier |
| 7 2-Fluorophenol (Surr.) | | 55.9 | 15-80 | |
| 8 Nitrobenzene-d5 (Surr.) | | 94.1 | 50-150 | |
| 9 2-Fluorobiphenyl (Surr.) | | 77.6 | 50-150 | |
| 10 2-4-6-Tribromophenol (Su | | 98.7 | 50-150 | |
| 11 Terphenyl-d14 (Surr.) | | 116.3 | 50-150 | |
| 12 Methyl Methanesulfonate | | 84.2 | 50-150 | |
| 13 Ethyl methanesulfonate | | 103.8 | 50-150 | |
| 14 Phenol | | 49.1 | 30-120 | |
| 15 Aniline | | 70.2 | 50-150 | |
| 16 Bis(2-chloroethyl) ether | | 102.9 | 50-150 | |
| 17 2-Chlorophenol | | 91.7 | 30-120 | |
| 18 1,3-Dichlorobenzene | | 68.2 | 50-150 | |
| 19 1,4-Dichlorobenzene | | 70.4 | 50-150 | |
| 20 Benzyl Alcohol | | 104.4 | 50-150 | |
| 21 1,2-Dichlorobenzene | | 73.5 | 50-150 | |
| 22 2-Methylphenol | | 87.9 | 30-120 | |
| 23 4-Methylphenol | | 80.9 | 30-120 | |
| 24 Acetophenone | | 100.2 | 50-150 | |
| 25 N-Nitroso-di-n-propylami | | 105.6 | 50-150 | |
| 26 Hexachloroethane | | 57.0 | 50-150 | |
| 27 Nitrobenzene | | 97.6 | 50-150 | |
| 28 N-Nitrosopiperidine | | 128.4 | 50-150 | |
| 29 Isophorone | | 108.1 | 50-150 | |
| 30 2-Nitrophenol | | 100.5 | 30-120 | |
| 31 2,4-Dimethylphenol | | 80.0 | 30-120 | |
| 32 Bis(2-chloroethoxy) meth | | 96.6 | 50-150 | |
| 33 2-4-Dichlorophenol | | 92.0 | 30-120 | |
| 34 1-2-4-Trichlorobenzene | | 76.8 | 50-150 | |
| 35 Naphthalene | | 87.4 | 50-150 | |
| 36 4-Chloroaniline | | 90.9 | 50-150 | |
| 37 2-6-Dichlorophenol | | 95.5 | 30-120 | |
| 38 Hexachlorobutadiene | | 55.4 | 50-150 | |
| 39 N-Nitrosodibutylamine | | 105.9 | 50-150 | |
| 40 4-Chloro-3-methylphenol | | 97.4 | 30-120 | |
| 41 2-Methylnaphthalene | | 90.5 | 50-150 | |
| 42 1-2-4-5-Tetrachlorobenze | | 79.1 | 50-150 | |
| 43 Hexachlorocyclopentadien | | 67.2 | 50-150 | |
| 44 2,4,6-Trichlorophenol | | 100.2 | 30-120 | |
| | | | | |

Extracted LCS

Extracted Date 04-25-2018

Extracted by EH, JR

| 45 2,4,5-Trichlorophenol | 94.3 | 30-120 | |
|-----------------------------|-------|--------|--|
| 46 2-Chloronaphthalene | 91.5 | 50-150 | |
| 47 1-Chloronaphthalene | 79.9 | 50-150 | |
| 48 2-Nitroaniline | 108.9 | 50-150 | |
| 49 Dimethyl-phthalate | 103.7 | 50-150 | |
| 50 Acenaphthylene | 95.2 | 50-150 | |
| | | | |
| 51 2-6-Dinitrotoluene | 103.0 | 50-150 | |
| 52 3-Nitroaniline | 104.3 | 50-150 | |
| 53 Acenaphthene | 93.7 | 50-150 | |
| 54 2-4-Dinitrophenol | 65.0 | 30-120 | |
| 55 Dibenzofuran | 99.2 | 50-150 | |
| 56 4-Nitrophenol | 49.2 | 30-120 | |
| 57 Pentachlorobenzene | 83.3 | 50-150 | |
| 58 2-4-Dinitrotoluene | 100.8 | 50-150 | |
| 59 2-3-4-6-Tetrachloropheno | 96.4 | 30-120 | |
| 60 Fluorene | 97.3 | 50-150 | |
| 61 Diethylphthalate | 106.9 | 50-150 | |
| 62 4-Chlorophenyl-phenyl et | 94.3 | 50-150 | |
| | | | |
| 63 4-Nitroaniline | 110.9 | 50-150 | |
| 64 4-6-Dintro-2-methylpheno | 98.3 | 30-120 | |
| 65 Diphenylamine | 109.9 | 50-150 | |
| 66 Azobenzene | 107.4 | 50-150 | |
| 67 4-Bromophenyl-phenyl eth | 104.4 | 50-150 | |
| 68 Hexachlorobenzene | 101.0 | 50-150 | |
| 69 Pentachlorophenol | 106.6 | 30-120 | |
| 70 Pentachloronitrobenzene | 103.3 | 50-150 | |
| 71 Pronamide | 109.2 | 50-150 | |
| 72 Phenanthrene | 106.2 | 50-150 | |
| 73 Anthracene | 104.4 | 50-150 | |
| 74 Carbazole | 119.1 | 50-150 | |
| | | | Descrition the Mathed Displace O. E.A. vol. |
| 75 Di-n-butylphthalate | 141.6 | 50-150 | Present in the Method Blank at 0.54 ug/L |
| 76 Fluoranthene | 100.8 | 50-150 | |
| 77 Pyrene | 117.4 | 50-150 | |
| 78 Dimethylaminoazobenzene | 129.4 | 50-150 | |
| 79 Butylbenzyl phthalate | 138.3 | 50-150 | |
| 80 Benz[a]anthracene | 120.7 | 50-150 | |
| 81 Chrysene | 121.1 | 50-150 | |
| 82 Bis(2-ethylhexyl) phthal | 157.0 | 50-150 | Present in the Method Blank at 0.22 ug/L; L = analyte failed (high) to meet acceptance criteria in the LCS |
| 83 Di-n-octyl phthalate | 158.2 | 50-150 | L = analyte failed (high) to meet acceptance criteria in the LCS |
| 84 Benzo[b]fluoranthene | 139.5 | 50-150 | |
| 85 Dimethylbenzo(a)anthrace | 119.2 | 50-150 | |
| 86 Benzo(k)fluoranthene | 123.7 | 50-150 | |
| * * | 137.1 | 50-150 | |
| 87 Benzo(a)pyrene | | | |
| 88 3-Methylcholanthrene | 137.8 | 50-150 | |
| 89 Indeno[1-2-3-cd]pyrene | 148.6 | 50-150 | |
| 90 Dibenz(a-h)anthracene | 154.7 | 50-150 | L = analyte failed (high) to meet acceptance criteria in the LCS |
| 91 Benzo(ghi)perylene | 142.6 | 50-150 | |
| | | | |

Sample ID: 2018-1709 Dup Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibration: 5/24/2018 11:27 Acquisition Date 5/24/2018 15:04

Target Compounds

| Target Compo | | | | | | |
|---------------|-----------------------------|------------|---------------|----------|--------------|--|
| | | | Acc. Criteria | Reported | | - 16 |
| Peaks: 91("#" | | % Recovery | | Result | Amount Units | Qualifier |
| | 7 2-Fluorophenol (Surr.) | 45.25 | | | ug/L | |
| | 8 Nitrobenzene-d5 (Surr.) | 62.12 | | | ug/L | |
| | 9 2-Fluorobiphenyl (Surr.) | 54.96 | | | ug/L | |
| | 10 2-4-6-Tribromophenol (Su | 57.82 | | | ug/L | |
| | 11 Terphenyl-d14 (Surr.) | 82.38 | 50-150 | | ug/L | |
| | 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| | 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| | 14 Phenol | | | < 0.2 | ug/L | |
| | 15 Aniline | | | < 0.2 | ug/L | Manalyte failed (low) to recover within acceptance criteria in the MS and/or MSD; result MAY be biased lov |
| | 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| | 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| | 18 1,3-Dichlorobenzene | | | | 7 ug/L | Manalyte failed (low) to recover within acceptance criteria in the MS and/or MSD; result MAY be biased low |
| | 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | Manalyte failed (low) to recover within acceptance criteria in the MS and/or MSD; result MAY be biased low |
| | 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| | 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 22 2-Methylphenol | | | < 0.2 | ug/L | RRPD failed to meet acceptance criteria |
| | 23 4-Methylphenol | | | < 0.2 | ug/L | RRPD failed to meet acceptance criteria |
| | 24 Acetophenone | | | < 0.2 | ug/L | |
| | 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| | 26 Hexachloroethane | | | < 0.2 | ug/L | |
| | 27 Nitrobenzene | | | < 0.2 | ug/L | |
| | 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| | 29 Isophorone | | | < 0.2 | ug/L | |
| | 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| | 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | Manalyte failed (low) to recover within acceptance criteria in the MS and/or MSD; result MAY be biased low |
| | 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| | 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| | 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| | 35 Naphthalene | | | < 0.2 | ug/L | |
| | 36 4-Chloroaniline | | | < 0.2 | ug/L | Manalyte failed (low) to recover within acceptance criteria in the MS and/or MSD; result MAY be biased low |
| | 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| | 38 Hexachlorobutadiene | | | < 0.2 | ug/L | Manalyte failed (low) to recover within acceptance criteria in the MS and/or MSD; result MAY be biased lov |
| | 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| | 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| | 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| | 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| | 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | Manalyte failed (low) to recover within acceptance criteria in the MS and/or MSD; result MAY be biased low |
| | 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| | 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| | 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| | 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| | 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| | 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| | 50 Acenaphthylene | | | < 0.2 | ug/L | |
| | 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| | 52 3-Nitroaniline | | | < 0.2 | ug/L | |

Extracted Sample MW-12S

Extracted Date 04-26-2018 Extracted by EH, JR

| 53 Acenaphthene | < 0.2 | ug/L |
|-----------------------------|-------|------|
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

R--RPD of MS/MSD failed to meet acceptance criteria

R--RPD failed to meet acceptance criteria

Sample ID: 2018-1710 Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibration: 5/24/2018 11:27 Acquisition Date: 5/24/2018 16:32

Target Compounds

| | | | Acc. Criteria | Reported | |
|---------------|-----------------------------|------------|---------------|----------|--------------|
| Peaks: 91("#" | Peak Name | % Recovery | % Recovery | Result | Amount Units |
| , | 7 2-Fluorophenol (Surr.) | 41.34 | · · | | ug/L |
| | 8 Nitrobenzene-d5 (Surr.) | 62.87 | 50-150 | | ug/L |
| | 9 2-Fluorobiphenyl (Surr.) | 62.83 | 50-150 | | ug/L |
| | 10 2-4-6-Tribromophenol (Su | 66.01 | 50-150 | | ug/L |
| | 11 Terphenyl-d14 (Surr.) | 69.08 | 50-150 | | ug/L |
| | 12 Methyl Methanesulfonate | | | < 0.2 | ug/L |
| | 13 Ethyl methanesulfonate | | | < 0.2 | ug/L |
| | 14 Phenol | | | < 0.2 | ug/L |
| | 15 Aniline | | | < 0.2 | ug/L |
| | 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| | 17 2-Chlorophenol | | | < 0.2 | ug/L |
| | 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L |
| | 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| | 20 Benzyl Alcohol | | | 0.3 | 9 ug/L |
| | 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| | 22 2-Methylphenol | | | < 0.2 | ug/L |
| | 23 4-Methylphenol | | | < 0.2 | ug/L |
| | 24 Acetophenone | | | < 0.2 | ug/L |
| | 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| | 26 Hexachloroethane | | | < 0.2 | ug/L |
| | 27 Nitrobenzene | | | < 0.2 | ug/L |
| | 28 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| | 29 Isophorone | | | < 0.2 | ug/L |
| | 30 2-Nitrophenol | | | < 0.4 | ug/L |
| | 31 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| | 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| | 33 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| | 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| | 35 Naphthalene | | | < 0.2 | ug/L |
| | 36 4-Chloroaniline | | | < 0.2 | ug/L |
| | 37 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| | 38 Hexachlorobutadiene | | | < 0.2 | ug/L |
| | 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| | 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| | 41 2-Methylnaphthalene | | | < 0.2 | ug/L |
| | 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| | 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| | 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |

Extracted Sample MW-22D

Extracted Date 04-26-2018 Extracted by EH, JR

| 45 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|-----------------------------|-------|--------------------------|
| 46 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 2-Nitroaniline | < 0.2 | ug/L |
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachlorophenol | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | |
| • | | ug/L).25 ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | • |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |

Sample ID: 2018-1711

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/24/2018 17:02

Target Compounds

| | | Acc. Criteria | Reported | |
|----------------------------------|-------|---------------|----------|---------------------|
| Peaks: 91(" Peak Name % Recovery | | % Recovery | Result | Amount Units |
| 7 2-Fluoropheno | 41.92 | 15-80 | | ug/L |
| 8 Nitrobenzene-c | 55.82 | 50-150 | | ug/L |
| 9 2-Fluorobipher | 54.53 | 50-150 | | ug/L |
| 10 2-4-6-Tribromc | 60.56 | 50-150 | | ug/L |
| 11 Terphenyl-d14 | 72.63 | 50-150 | | ug/L |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 14 Phenol | | | < 0.2 | ug/L |
| 15 Aniline | | | < 0.2 | ug/L |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 17 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 2-Methylphenol | | | < 0.2 | ug/L |
| 23 4-Methylphenol | | | < 0.2 | ug/L |
| 24 Acetophenone | | | < 0.2 | ug/L |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 26 Hexachloroethane | | | < 0.2 | ug/L |
| 27 Nitrobenzene | | | < 0.2 | ug/L |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 Isophorone | | | < 0.2 | ug/L |
| 30 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 35 Naphthalene | | | < 0.2 | ug/L |
| 36 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |

Extracted Sample MW-22S

Extracted Date 04-26-2018 Extracted by EH, JR

| 45 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|-----------------------------|-------|------|
| 46 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 2-Nitroaniline | < 0.2 | ug/L |
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| / | | 0, |

Sample ID: 2018-1712 Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibration: 5/24/2018 11:27 Acquisition Date: 5/24/2018 17:31

Target Compounds

| | | | Acc. Criteria | Reported | |
|---------------|---------------------------|------------|---------------|----------|---------------------|
| Peaks: 91("#" | Peak Name | % Recovery | % Recovery | Result | Amount Units |
| | ' 2-Fluorophenol (Surr.) | 45.63 | 15-80 | | ug/L |
| 8 | B Nitrobenzene-d5 (Surr.) | 65.37 | 50-150 | | ug/L |
| 9 | 2-Fluorobiphenyl (Surr.) | 63.71 | 50-150 | | ug/L |
| 10 | 2-4-6-Tribromophenol (Su | 73.85 | 50-150 | | ug/L |
| 11 | . Terphenyl-d14 (Surr.) | 74.39 | 50-150 | | ug/L |
| 12 | ! Methyl Methanesulfonate | | | < 0.2 | ug/L |
| 13 | Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 14 | Phenol | | | < 0.2 | ug/L |
| 15 | 5 Aniline | | | < 0.2 | ug/L |
| 16 | Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 17 | ' 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 | 3 1,3-Dichlorobenzene | | | 2.92 | l ug/L |
| 19 | 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 | Benzyl Alcohol | | | < 0.2 | ug/L |
| 21 | . 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 | 2 2-Methylphenol | | | < 0.2 | ug/L |
| 23 | 4-Methylphenol | | | < 0.2 | ug/L |
| 24 | Acetophenone | | | < 0.2 | ug/L |
| 25 | N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 26 | Hexachloroethane | | | < 0.2 | ug/L |
| 27 | ' Nitrobenzene | | | < 0.2 | ug/L |
| 28 | N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 | Isophorone | | | < 0.2 | ug/L |
| 30 | 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 | . 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 | Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 33 | 3 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 | 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 35 | Naphthalene | | | < 0.2 | ug/L |
| 36 | 6 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 | ' 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 | B Hexachlorobutadiene | | | < 0.2 | ug/L |
| 39 | N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 40 | 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 41 | . 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 | 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 43 | Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 44 | 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |

Extracted Sample MW-9S

Extracted by EH, JR

Extracted Date 04-26-2018

| 45 | 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|----|--------------------------|-------|------|
| 46 | 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 | 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 | 2-Nitroaniline | < 0.2 | ug/L |
| 49 | Dimethyl-phthalate | < 0.2 | ug/L |
| 50 | Acenaphthylene | < 0.2 | ug/L |
| 51 | 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 | 3-Nitroaniline | < 0.2 | ug/L |
| 53 | Acenaphthene | < 0.2 | ug/L |
| | 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 | Dibenzofuran | < 0.2 | ug/L |
| 56 | 4-Nitrophenol | < 1.0 | ug/L |
| 57 | Pentachlorobenzene | < 0.2 | ug/L |
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| | Fluorene | < 0.2 | ug/L |
| | Diethylphthalate | < 0.2 | ug/L |
| | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| | 4-Nitroaniline | < 0.2 | ug/L |
| | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| | Diphenylamine | < 0.2 | ug/L |
| | Azobenzene | < 0.2 | ug/L |
| | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| | Hexachlorobenzene | < 0.2 | ug/L |
| | Pentachlorophenol | < 1.0 | ug/L |
| | Pentachloronitrobenzene | < 0.2 | ug/L |
| | Pronamide | < 0.2 | ug/L |
| | Phenanthrene | < 0.2 | ug/L |
| | Anthracene | < 0.2 | ug/L |
| | Carbazole | < 0.2 | ug/L |
| | Di-n-butylphthalate | < 0.2 | ug/L |
| | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| | Dimethylaminoazobenzene | < 0.2 | ug/L |
| | Butylbenzyl phthalate | < 0.2 | ug/L |
| | Benz[a]anthracene | < 0.2 | ug/L |
| | Chrysene | < 0.2 | ug/L |
| | Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| | Di-n-octyl phthalate | < 0.2 | ug/L |
| | Benzo[b]fluoranthene | < 0.2 | ug/L |
| | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| | Benzo(k)fluoranthene | < 0.2 | ug/L |
| | Benzo(a)pyrene | < 0.2 | ug/L |
| | 3-Methylcholanthrene | < 0.2 | ug/L |
| | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| | Benzo(ghi)perylene | < 0.2 | ug/L |
| | S n r | | 3, |

Sample ID: 2018-1713 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/24/2018 18:00 Extracted Sample MW-9D Extracted Date 04-26-2018 Extracted by EH, JR

Target Compounds

| | | Acc. Criteria | Reported | | |
|-----------------------------|------------|---------------|----------|--------------|--|
| Peaks: 91("Peak Name | % Recovery | % Recovery | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 47.32 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 71.85 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 71.27 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 70.37 | 50-150 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 67.48 | 50-150 | | ug/L | |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased low |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | 3.89 | 9 ug/L | Over Range; analyzed a 1/5 dilution |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased low |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| 23 4-Methylphenol | | | < 0.2 | ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased low |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased low |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | MAnalyte failed (low) to meet acceptance criteria for MS and/or MSD recovery; result MAY be biased low |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| | | | < 0.2 | ug/L | |

| | 52 3-Nitroaniline | < 0.2 | ug/L | |
|----|-----------------------------|-----------|------------|---|
| | 53 Acenaphthene | < 0.2 | ug/L | |
| | 54 2-4-Dinitrophenol | < 2.0 | ug/L | |
| | 55 Dibenzofuran | < 0.2 | ug/L | |
| | 56 4-Nitrophenol | < 1.0 | ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| | 57 Pentachlorobenzene | < 0.2 | ug/L | |
| | 58 2-4-Dinitrotoluene | < 0.2 | ug/L | |
| | 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L | |
| | 60 Fluorene | < 0.2 | ug/L | |
| | 61 Diethylphthalate | < 0.2 | ug/L | |
| | 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L | |
| | 63 4-Nitroaniline | < 0.2 | ug/L | |
| | 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L | |
| | 65 Diphenylamine | < 0.2 | ug/L | |
| | 66 Azobenzene | < 0.2 | ug/L | |
| | 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L | |
| | 68 Hexachlorobenzene | < 0.2 | ug/L | |
| | 69 Pentachlorophenol | < 1.0 | ug/L | |
| | 70 Pentachloronitrobenzene | < 0.2 | ug/L | |
| | 71 Pronamide | < 0.2 | ug/L | |
| | 72 Phenanthrene | < 0.2 | ug/L | |
| | 73 Anthracene | < 0.2 | ug/L | |
| | 74 Carbazole | < 0.2 | ug/L | |
| | 75 Di-n-butylphthalate | < 0.2 | ug/L | |
| | 76 Fluoranthene | < 0.2 | ug/L | |
| | 77 Pyrene | < 0.2 | ug/L | |
| | 78 Dimethylaminoazobenzene | < 0.2 | ug/L | |
| | 79 Butylbenzyl phthalate | < 0.2 | ug/L | |
| | 80 Benz[a]anthracene | < 0.2 | ug/L | |
| | 81 Chrysene | < 0.2 | ug/L | |
| | 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L | |
| | 83 Di-n-octyl phthalate | < 0.2 | ug/L | |
| | 84 Benzo[b]fluoranthene | < 0.2 | ug/L | |
| | 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L | |
| | 86 Benzo(k)fluoranthene | < 0.2 | ug/L | |
| | 87 Benzo(a)pyrene | < 0.2 | ug/L | |
| | 88 3-Methylcholanthrene | < 0.2 | ug/L | |
| | 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L | |
| | 90 Dibenz(a-h)anthracene | < 0.2 | ug/L | |
| | 91 Benzo(ghi)perylene | < 0.2 | ug/L | RRPD of MS/MSD failed to meet acceptance criteria |
| Sa | imple ID: 2018-1713 1-5 dil | Extracted | Sample MV | N-9D |
| 0 | perator: Ed Harris | Extracted | Date 04-26 | i-2018 |
| | | | | |

Extracted by EH, JR

Reported

Result Peaks: 91 Peak Name Amount Units

5/24/2018 11:27

5/25/2018 9:22

18 1,3-Dichlorobenzene

Instrument MS Instrument #1

Last Calibra

Acquisition

Sample ID: 2018-1772 Operator: Ed Harris

Instrument ID: MS Instrument #1
Last Calibration: 5/24/2018 11:27
Acquisition Date: 5/24/2018 18:30

Extracted Sample MW-20S Extracted Date 04-26-2018 Extracted by EH, JR

Target Compounds

| Target Compou | | | | Acc. Criteria | Reported | | |
|---------------|-----------------------------|------------|-------|---------------|----------|--------------|--|
| Peaks: 91("#" | Peak Name | % Recovery | | % Recovery | Result | Amount Units | Qualifier |
| | 7 2-Fluorophenol (Surr.) | | 31.25 | 15-80 | | ug/L | |
| | 8 Nitrobenzene-d5 (Surr.) | | 58.49 | 50-150 | | ug/L | |
| | 9 2-Fluorobiphenyl (Surr.) | | 55.3 | 50-150 | | ug/L | |
| | 10 2-4-6-Tribromophenol (Su | | 8.23 | 50-150 | | ug/L | S—Surrogate recovery does not meet acceptance criteria; all analytes associated with this surrogate will be flagged as "estimated" |
| | 11 Terphenyl-d14 (Surr.) | | 73.66 | 50-150 | | ug/L | Analytes associated with this surrogate MAY be biased low |
| | 12 Methyl Methanesulfonate | | | | < 0.2 | ug/L | |
| | 13 Ethyl methanesulfonate | | | | < 0.2 | ug/L | |
| | 14 Phenol | | | | < 0.2 | ug/L | |
| | 15 Aniline | | | | < 0.2 | ug/L | |
| | 16 Bis(2-chloroethyl) ether | | | | < 0.2 | ug/L | |
| | 17 2-Chlorophenol | | | | < 0.2 | ug/L | |
| | 18 1,3-Dichlorobenzene | | | | < 0.2 | ug/L | |
| | 19 1,4-Dichlorobenzene | | | | < 0.2 | ug/L | |
| | 20 Benzyl Alcohol | | | | | ug/L | |
| | 21 1,2-Dichlorobenzene | | | | < 0.2 | ug/L | |
| | 22 2-Methylphenol | | | | < 0.2 | ug/L | |
| | 23 4-Methylphenol | | | | < 0.2 | ug/L | |
| | 24 Acetophenone | | | | < 0.2 | ug/L | |
| | 25 N-Nitroso-di-n-propylami | | | | < 0.2 | ug/L | |
| | 26 Hexachloroethane | | | | < 0.2 | ug/L | |
| | 27 Nitrobenzene | | | | < 0.2 | ug/L | |
| | 28 N-Nitrosopiperidine | | | | < 0.2 | ug/L | |
| | 29 Isophorone | | | | < 0.2 | ug/L | |
| | 30 2-Nitrophenol | | | | < 0.4 | ug/L | |
| | 31 2,4-Dimethylphenol | | | | < 0.2 | ug/L | |
| | 32 Bis(2-chloroethoxy) meth | | | | < 0.2 | ug/L | |
| | 33 2-4-Dichlorophenol | | | | < 0.2 | ug/L | |
| | 34 1-2-4-Trichlorobenzene | | | | < 0.2 | ug/L | |
| | 35 Naphthalene | | | | < 0.2 | ug/L | |
| | 36 4-Chloroaniline | | | | < 0.2 | ug/L | |
| | 37 2-6-Dichlorophenol | | | | < 0.2 | ug/L | |
| | 38 Hexachlorobutadiene | | | | < 0.2 | ug/L | |
| | 39 N-Nitrosodibutylamine | | | | < 0.2 | ug/L | |
| | 40 4-Chloro-3-methylphenol | | | | < 0.2 | ug/L | |
| | 41 2-Methylnaphthalene | | | | < 0.2 | ug/L | |
| | 42 1-2-4-5-Tetrachlorobenze | | | | < 0.2 | ug/L | |
| | 43 Hexachlorocyclopentadien | | | | < 0.2 | ug/L | |
| | 44 2,4,6-Trichlorophenol | | | | < 0.2 | ug/L | |
| | 45 2,4,5-Trichlorophenol | | | | < 0.2 | ug/L | |
| | 46 2-Chloronaphthalene | | | | < 0.2 | ug/L | |
| | 47 1-Chloronaphthalene | | | | < 0.2 | ug/L | |
| | 48 2-Nitroaniline | | | | < 0.2 | ug/L | |
| | 49 Dimethyl-phthalate | | | | < 0.2 | ug/L | |
| | 50 Acenaphthylene | | | | < 0.2 | ug/L | |
| | 51 2-6-Dinitrotoluene | | | | < 0.2 | ug/L | |
| | 52 3-Nitroaniline | | | | < 0.2 | ug/L | |
| | 53 Acenaphthene | | | | | ug/L | F. Fatiguated apply due to failure of accordance to apply and a set to AAAV to blood by |
| | 54 2-4-Dinitrophenol | | | | < 2.0 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 55 Dibenzofuran | | | | | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 56 4-Nitrophenol | | | | < 1.0 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 57 Pentachlorobenzene | | | | < 0.2 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 58 2-4-Dinitrotoluene | | | | < 0.2 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 59 2-3-4-6-Tetrachloropheno | | | | < 0.4 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 60 Fluorene | | | | | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 61 Diethylphthalate | | | | < 0.2 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 62 4-Chlorophenyl-phenyl et | | | | < 0.2 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |
| | 63 4-Nitroaniline | | | | < 0.2 | ug/L | EEstimated result due to failure of associated surrogate compound; analyte MAY be biased low |

| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
|-----------------------------|-------|--------|
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | 0.87 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | 0.42 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | 0.28 | 3 ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low

E--Estimated result due to failure of associated surrogate compound; analyte MAY be biased low

Sample ID: 2018-1773 Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibration: 5/24/2018 11:27 Acquisition Date: 5/24/2018 18:59

Target Compounds

| | | | Acc. Criteria | Reported | |
|---------------|--|---|--|--|--|
| Peaks: 91("#" | Peak Name 7 2-Fluorophenol (Surr.) 8 Nitrobenzene-d5 (Surr.) 9 2-Fluorobiphenyl (Surr.) 10 2-4-6-Tribromophenol (Su 11 Terphenyl-d14 (Surr.) 12 Methyl Methanesulfonate 13 Ethyl methanesulfonate 14 Phenol 15 Aniline 16 Bis(2-chloroethyl) ether 17 2-Chlorophenol 18 1,3-Dichlorobenzene 19 1,4-Dichlorobenzene 20 Benzyl Alcohol 21 1,2-Dichlorobenzene 22 2-Methylphenol 23 4-Methylphenol 24 Acetophenone 25 N-Nitroso-di-n-propylami 26 Hexachloroethane 27 Nitrobenzene 28 N-Nitrosopiperidine 29 Isophorone 30 2-Nitrophenol 31 2,4-Dimethylphenol 32 Bis(2-chloroethoxy) meth 33 2-4-Dichlorophenol 34 1-2-4-Trichlorobenzene 35 Naphthalene 36 4-Chloroaniline 37 2-6-Dichlorophenol 38 Hexachlorobutadiene | % Recovery 41.44 61.18 56.3 56.42 64.58 | Acc. Criteria % Recovery 15-80 50-150 50-150 50-150 50-150 | Result < 0.2 | Amount Units ug/L
| | 34 1-2-4-Trichlorobenzene 35 Naphthalene | | | < 0.2 < 0.2 | ug/L ug/L |
| | 36 4-Chloroaniline 37 2-6-Dichlorophenol 38 Hexachlorobutadiene 39 N-Nitrosodibutylamine 40 4-Chloro-3-methylphenol 41 2-Methylnaphthalene 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 | ug/L ug/L ug/L ug/L ug/L ug/L ug/L |
| | 43 Hexachlorocyclopentadien 44 2,4,6-Trichlorophenol | | | < 0.2 < 0.2 | ug/L ug/L |

Extracted Sample MW-20D

Extracted Date 04-26-2018 Extracted by EH, JR

| 4 | 15 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|---|-----------------------------|-------|------|
| 4 | 16 2-Chloronaphthalene | < 0.2 | ug/L |
| 4 | 7 1-Chloronaphthalene | < 0.2 | ug/L |
| 4 | 18 2-Nitroaniline | < 0.2 | ug/L |
| 4 | 19 Dimethyl-phthalate | < 0.2 | ug/L |
| | 50 Acenaphthylene | < 0.2 | ug/L |
| | 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 5 | 52 3-Nitroaniline | < 0.2 | ug/L |
| | 3 Acenaphthene | < 0.2 | ug/L |
| | 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 5 | 55 Dibenzofuran | < 2.0 | ug/L |
| 5 | 66 4-Nitrophenol | < 1.0 | ug/L |
| | 7 Pentachlorobenzene | < 0.2 | ug/L |
| 5 | 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 5 | 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 6 | 50 Fluorene | < 0.2 | ug/L |
| 6 | 51 Diethylphthalate | < 0.2 | ug/L |
| 6 | 52 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 6 | 53 4-Nitroaniline | < 0.2 | ug/L |
| 6 | 54 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 6 | 55 Diphenylamine | < 0.2 | ug/L |
| 6 | 66 Azobenzene | < 0.2 | ug/L |
| 6 | 57 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 6 | 58 Hexachlorobenzene | < 0.2 | ug/L |
| 6 | 59 Pentachlorophenol | < 1.0 | ug/L |
| 7 | 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 7 | 71 Pronamide | < 0.2 | ug/L |
| 7 | 72 Phenanthrene | < 0.2 | ug/L |
| 7 | 73 Anthracene | < 0.2 | ug/L |
| 7 | 74 Carbazole | < 0.2 | ug/L |
| 7 | 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 7 | 76 Fluoranthene | < 0.2 | ug/L |
| 7 | 77 Pyrene | < 0.2 | ug/L |
| 7 | 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 7 | 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 8 | 30 Benz[a]anthracene | < 0.2 | ug/L |
| 8 | 31 Chrysene | < 0.2 | ug/L |
| 8 | 32 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 8 | 33 Di-n-octyl phthalate | < 0.2 | ug/L |
| 8 | 34 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 8 | 35 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 8 | 36 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 8 | 37 Benzo(a)pyrene | < 0.2 | ug/L |
| 8 | 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 8 | 39 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| ç | 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| ç | 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

Sample ID: 2018-1774 Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibratior 5/24/2018 11:27 Acquisition Dat 5/24/2018 19:28

Target Compounds

| | | | Acc. Criteria | Reported | |
|-------------------|--------------------------|------------|---------------|----------|--------------|
| Peaks: 91("#" F | Peak Name | % Recovery | % Recovery | Result | Amount Units |
| 7 2 | 2-Fluorophenol (Surr.) | 39.17 | 15-80 | | ug/L |
| 1 8 | Nitrobenzene-d5 (Surr.) | 66.65 | 50-150 | | ug/L |
| 9 2 | 2-Fluorobiphenyl (Surr.) | 64.4 | 50-150 | | ug/L |
| 10 2 | 2-4-6-Tribromophenol (Su | 71.44 | 50-150 | | ug/L |
| 11 7 | Terphenyl-d14 (Surr.) | 71.24 | 50-150 | | ug/L |
| 12 [| Methyl Methanesulfonate | | | < 0.2 | ug/L |
| 13 E | Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 14 F | Phenol | | | < 0.2 | ug/L |
| 15 / | Aniline | | | < 0.2 | ug/L |
| 16 E | Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 17 2 | 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 1 | 1,3-Dichlorobenzene | | | 1.83 | ug/L |
| 19 1 | 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 E | Benzyl Alcohol | | | 0.42 | ug/L |
| 21 1 | 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 2 | 2-Methylphenol | | | < 0.2 | ug/L |
| 23 4 | 4-Methylphenol | | | < 0.2 | ug/L |
| 24 / | Acetophenone | | | < 0.2 | ug/L |
| 25 1 | N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 26 H | Hexachloroethane | | | < 0.2 | ug/L |
| 27 1 | Nitrobenzene | | | < 0.2 | ug/L |
| 1 82 | N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 I | sophorone | | | < 0.2 | ug/L |
| 30 2 | 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 2 | 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 E | Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 33 2 | 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 1 | 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 35 1 | Naphthalene | | | < 0.2 | ug/L |
| 36 4 | 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 2 | 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 H | Hexachlorobutadiene | | | < 0.2 | ug/L |
| 1 98 | N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 40 4 | 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 41 2 | 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 1 | 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 43 I | Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 44 2 | 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| | | | | | |

Extracted Sample MW-10D

Extracted Date 04-26-2018

Extracted by EH, JR

| 45 | 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|----|--------------------------|-------|-----------|
| 46 | 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 | 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 | 2-Nitroaniline | < 0.2 | ug/L |
| 49 | Dimethyl-phthalate | < 0.2 | ug/L |
| 50 | Acenaphthylene | < 0.2 | ug/L |
| 51 | 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 | 3-Nitroaniline | < 0.2 | ug/L |
| 53 | Acenaphthene | < 0.2 | ug/L |
| 54 | 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 | Dibenzofuran | < 0.2 | ug/L |
| 56 | 4-Nitrophenol | < 1.0 | ug/L |
| 57 | Pentachlorobenzene | < 0.2 | ug/L |
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | | 0.24 ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| | Benzo(k)fluoranthene | < 0.2 | ug/L |
| | Benzo(a)pyrene | < 0.2 | ug/L |
| | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | - |

Sample ID: 2018-1775 Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibration: 5/24/2018 11:27 Acquisition Date: 5/24/2018 19:58

Target Compounds

| | | | Acc. Criteria | Reported | |
|---------------|----------------------------|------------|---------------|----------|--------------|
| Peaks: 91("#" | Peak Name | % Recovery | % Recovery | Result | Amount Units |
| | 7 2-Fluorophenol (Surr.) | 44.15 | 15-80 | | ug/L |
| | 8 Nitrobenzene-d5 (Surr.) | 61.41 | 50-150 | | ug/L |
| | 9 2-Fluorobiphenyl (Surr.) | 58.88 | 50-150 | | ug/L |
| 1 | 0 2-4-6-Tribromophenol (Su | 56.43 | 50-150 | | ug/L |
| 1 | 1 Terphenyl-d14 (Surr.) | 69.97 | 50-150 | | ug/L |
| 1 | 2 Methyl Methanesulfonate | | | < 0.2 | ug/L |
| 1 | 3 Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 1 | 4 Phenol | | | < 0.2 | ug/L |
| 1 | 5 Aniline | | | < 0.2 | ug/L |
| 1 | 6 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 1 | 7 2-Chlorophenol | | | < 0.2 | ug/L |
| 1 | 8 1,3-Dichlorobenzene | | | 2 | ug/L |
| 1 | 9 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 2 | 0 Benzyl Alcohol | | | 0.36 | ug/L |
| 2 | 1 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 2 | 2 2-Methylphenol | | | < 0.2 | ug/L |
| 2 | 3 4-Methylphenol | | | < 0.2 | ug/L |
| 2 | 4 Acetophenone | | | < 0.2 | ug/L |
| 2 | 5 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 2 | 6 Hexachloroethane | | | < 0.2 | ug/L |
| 2 | 7 Nitrobenzene | | | < 0.2 | ug/L |
| 2 | 8 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 2 | 9 Isophorone | | | < 0.2 | ug/L |
| 3 | 0 2-Nitrophenol | | | < 0.4 | ug/L |
| 3 | 1 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 3 | 2 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 3 | 3 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 3 | 4 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 3 | 5 Naphthalene | | | < 0.2 | ug/L |
| 3 | 6 4-Chloroaniline | | | < 0.2 | ug/L |
| 3 | 7 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 3 | 8 Hexachlorobutadiene | | | < 0.2 | ug/L |
| 3 | 9 N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 4 | 0 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 4 | 1 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 4 | 2 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 4 | 3 Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 4 | 4 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| | | | | | |

Extracted Sample MW-10S

Extracted Date 04-26-2018 Extracted by EH, JR

| 45 | 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|----|--------------------------|-------|------|
| 46 | 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 | 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 | 2-Nitroaniline | < 0.2 | ug/L |
| 49 | Dimethyl-phthalate | < 0.2 | ug/L |
| | Acenaphthylene | < 0.2 | ug/L |
| | 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 | 3-Nitroaniline | < 0.2 | ug/L |
| 53 | Acenaphthene | < 0.2 | ug/L |
| 54 | 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 | Dibenzofuran | < 0.2 | ug/L |
| 56 | 4-Nitrophenol | < 1.0 | ug/L |
| 57 | Pentachlorobenzene | < 0.2 | ug/L |
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

Sample ID: 2018-1776 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/24/2018 20:27

Target Compounds

| Target Compounds | | Acc. Criteria | Reported | |
|-----------------------------|------------|---------------|----------|--------------|
| Peaks: 91(" Peak Name | % Recovery | % Recovery | Result | Amount Units |
| 7 2-Fluorophenol (Surr.) | 22.95 | 15-80 | Nesuit | ug/L |
| 8 Nitrobenzene-d5 (Surr.) | 61.46 | 50-150 | | ug/L |
| 9 2-Fluorobiphenyl (Surr.) | 61.74 | 50-150 | | ug/L |
| 10 2-4-6-Tribromophenol (Su | 31.43 | 50-150 | | ug/L |
| 11 Terphenyl-d14 (Surr.) | 83.47 | 50-150 | | ug/L |
| 12 Methyl Methanesulfonate | 03.47 | 30-130 | < 0.2 | ug/L |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 14 Phenol | | | < 0.2 | ug/L |
| 15 Aniline | | | < 0.2 | ug/L |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 17 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 2-Methylphenol | | | < 0.2 | ug/L |
| 23 4-Methylphenol | | | < 0.2 | ug/L |
| 24 Acetophenone | | | < 0.2 | ug/L |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 26 Hexachloroethane | | | < 0.2 | ug/L |
| 27 Nitrobenzene | | | < 0.2 | ug/L |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 Isophorone | | | < 0.2 | ug/L |
| 30 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 35 Naphthalene | | | < 0.2 | ug/L |
| 36 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| | | | | |

Extracted Sample EB-6

Extracted Date 04-26-2018 Extracted by EH, JR

| 45 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|-----------------------------|-------|--------------|
| 46 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 2-Nitroaniline | < 0.2 | ug/L |
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | | |
| | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | |
| | | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ٠. |
| • • | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | ₹ 0.2 | ug/L |

Sample ID: 2018-1777

Operat

| le ID: 2018-1777 | Extracted Sample EB-5 |
|-------------------------|---------------------------|
| ator: Ed Harris | Extracted Date 04-26-2018 |
| ment MS Instrument #1 | Extracted by EH, JR |
| `alihr: 5/24/2018 11:27 | |

Instrum Last Calibra 5/24/2018 11:27 Acquisition 5/24/2018 20:56 Target Compounds

| | | Acc. Criteria | Reported | |
|----------------------------------|-------|---------------|----------|--------------|
| Peaks: 91(' Peak Name % Recovery | | % Recovery | Result | Amount Units |
| 7 2-Fluoropheno | 36.84 | 15-80 | | ug/L |
| 8 Nitrobenzene- | 60.59 | 50-150 | | ug/L |
| 9 2-Fluorobipher | 56.99 | 50-150 | | ug/L |
| 10 2-4-6-Tribromc | 55.23 | 50-150 | | ug/L |
| 11 Terphenyl-d14 | 74.92 | 50-150 | | ug/L |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 14 Phenol | | | < 0.2 | ug/L |
| 15 Aniline | | | < 0.2 | ug/L |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 17 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 1,3-Dichlorobenzene | | | 0.4 | 2 ug/L |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 2-Methylphenol | | | < 0.2 | ug/L |
| 23 4-Methylphenol | | | < 0.2 | ug/L |
| 24 Acetophenone | | | < 0.2 | ug/L |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 26 Hexachloroethane | | | < 0.2 | ug/L |
| 27 Nitrobenzene | | | < 0.2 | ug/L |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 Isophorone | | | < 0.2 | ug/L |
| 30 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 35 Naphthalene | | | < 0.2 | ug/L |
| 36 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L |

| 46 2-Chloronaphthalene47 1-Chloronaphthalene48 2-Nitroaniline49 Dimethyl-phthalate | < 0.2 < 0.2 < 0.2 | ug/L ug/L |
|---|-------------------------|--------------|
| 48 2-Nitroaniline | | - |
| | <02 | |
| 49 Dimethyl-phthalate | < U.Z | ug/L |
| | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| e es e | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | | |

Sample ID: 2018-1779 500mL

Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibration: 5/24/2018 11:27
Acquisition Date: 5/24/2018 21:55

Target Compounds

| | | | Acc. Criteria | Reported | |
|---------------|-----------------------------|------------|---------------|----------|--------------|
| Peaks: 91("#" | Peak Name | % Recovery | % Recovery | Result | Amount Units |
| | 7 2-Fluorophenol (Surr.) | 31.87 | 15-80 | | ug/L |
| | 8 Nitrobenzene-d5 (Surr.) | 51.11 | 50-150 | | ug/L |
| | 9 2-Fluorobiphenyl (Surr.) | 51.15 | 50-150 | | ug/L |
| | 10 2-4-6-Tribromophenol (Su | 51.01 | 50-150 | | ug/L |
| | 11 Terphenyl-d14 (Surr.) | 78.45 | 50-150 | | ug/L |
| | 12 Methyl Methanesulfonate | | | < 0.2 | ug/L |
| | 13 Ethyl methanesulfonate | | | < 0.2 | ug/L |
| | 14 Phenol | | | < 0.2 | ug/L |
| | 15 Aniline | | | < 0.2 | ug/L |
| | 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| | 17 2-Chlorophenol | | | < 0.2 | ug/L |
| | 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L |
| | 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| | 20 Benzyl Alcohol | | | < 0.2 | ug/L |
| | 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| | 22 2-Methylphenol | | | < 0.2 | ug/L |
| | 23 4-Methylphenol | | | < 0.2 | ug/L |
| | 24 Acetophenone | | | < 0.2 | ug/L |
| | 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| | 26 Hexachloroethane | | | < 0.2 | ug/L |
| | 27 Nitrobenzene | | | < 0.2 | ug/L |
| | 28 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| | 29 Isophorone | | | < 0.2 | ug/L |
| | 30 2-Nitrophenol | | | < 0.4 | ug/L |
| | 31 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| | 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| | 33 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| | 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| | 35 Naphthalene | | | < 0.2 | ug/L |
| | 36 4-Chloroaniline | | | < 0.2 | ug/L |
| | 37 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| | 38 Hexachlorobutadiene | | | < 0.2 | ug/L |
| | 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| | 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| | 41 2-Methylnaphthalene | | | < 0.2 | ug/L |
| | 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| | 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| | 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| | | | | | |

Extracted Sample MW-19D

Extracted Date 04-26-2018

Extracted by EH, JR

| 45 | 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|----|-------------------------------------|----------------|--------------|
| 46 | 2-Chloronaphthalene | < 0.2 | ug/L |
| | 1-Chloronaphthalene | < 0.2 | ug/L |
| | 2-Nitroaniline | < 0.2 | ug/L |
| 49 | Dimethyl-phthalate | < 0.2 | ug/L |
| | Acenaphthylene | < 0.2 | ug/L |
| | 2-6-Dinitrotoluene | < 0.2 | ug/L |
| | 3-Nitroaniline | < 0.2 | ug/L |
| | Acenaphthene | | 0.95 ug/L |
| | 2-4-Dinitrophenol | < 2.0 | ug/L |
| | Dibenzofuran | | 0.83 ug/L |
| | 4-Nitrophenol | < 1.0 | ug/L |
| | Pentachlorobenzene | < 0.2 | ug/L |
| | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| | Fluorene | .02 | 0.68 ug/L |
| | Diethylphthalate | < 0.2 | ug/L |
| | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| | 4-Nitroaniline | < 0.2 | ug/L |
| | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| | Diphenylamine | < 0.2 | ug/L |
| | Azobenzene 4-Bromophenyl-phenyl eth | < 0.2 < 0.2 | ug/L ug/L |
| | Hexachlorobenzene | < 0.2 | <u>.</u> |
| | Pentachlorophenol | < 1.0 | ug/L ug/L |
| | Pentachloronitrobenzene | < 0.2 | ug/L ug/L |
| | Pronamide | < 0.2 | ug/L ug/L |
| | Phenanthrene | V 0.2 | 0.33 ug/L |
| | Anthracene | < 0.2 | ug/L |
| | Carbazole | < 0.2 | ug/L |
| | Di-n-butylphthalate | < 0.2 | ug/L |
| | Fluoranthene | | 0.76 ug/L |
| | Pyrene | | 0.38 ug/L |
| | Dimethylaminoazobenzene | < 0.2 | ug/L |
| | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | | 0.23 ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

Sample ID: 2018-1780 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/24/2018 22:54

Target Compounds

| | | Acc. Criteria | Reported | |
|-----------------------------|------------|---------------|----------|--------------|
| Peaks: 91(" Peak Name | % Recovery | % Recovery | Result | Amount Units |
| 7 2-Fluorophenol (Surr.) | 39.19 | 15-80 | | ug/L |
| 8 Nitrobenzene-d5 (Surr.) | 72.98 | 50-150 | | ug/L |
| 9 2-Fluorobiphenyl (Surr.) | 65.95 | 50-150 | | ug/L |
| 10 2-4-6-Tribromophenol (Su | 42.19 | 50-150 | | ug/L |
| 11 Terphenyl-d14 (Surr.) | 86.63 | 50-150 | | ug/L |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 14 Phenol | | | < 0.2 | ug/L |
| 15 Aniline | | | < 0.2 | ug/L |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 17 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 2-Methylphenol | | | < 0.2 | ug/L |
| 23 4-Methylphenol | | | < 0.2 | ug/L |
| 24 Acetophenone | | | < 0.2 | ug/L |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 26 Hexachloroethane | | | < 0.2 | ug/L |
| 27 Nitrobenzene | | | < 0.2 | ug/L |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 Isophorone | | | < 0.2 | ug/L |
| 30 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 35 Naphthalene | | | < 0.2 | ug/L |
| 36 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| · | | | | |

Extracted Sample RW-6

Extracted Date 04-26-2018
Extracted by EH, JR

| 45 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|-----------------------------|-------|----------|
| 46 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 2-Nitroaniline | < 0.2 | ug/L |
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | | .21 ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |

Sample ID: Ext Blank Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibration: 5/24/2018 11:27 Acquisition Date 5/24/2018 13:36

Target Compounds

| | | | Acc. Criteria | Reported | | |
|---------------|--------------------------|------------|---------------|----------|--------------|-----------|
| Peaks: 91("#" | Peak Name | % Recovery | % Recovery | Result | Amount Units | Qualifier |
| 7 | 2-Fluorophenol (Surr.) | 44.7 | 15-80 | | ug/L | |
| 8 | Nitrobenzene-d5 (Surr.) | 88.89 | 50-150 | | ug/L | |
| 9 | 2-Fluorobiphenyl (Surr.) | 87.51 | 50-150 | | ug/L | |
| 10 | 2-4-6-Tribromophenol (Su | 62.59 | 50-150 | | ug/L | |
| 11 | Terphenyl-d14 (Surr.) | 100.69 | 50-150 | | ug/L | |
| 12 | Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 | Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 | Phenol | | | < 0.2 | ug/L | |
| 15 | Aniline | | | < 0.2 | ug/L | |
| 16 | Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 | 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 | 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| 19 | 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 | Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 | 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 | 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 | 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 | Acetophenone | | | < 0.2 | ug/L | |
| 25 | N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 | Hexachloroethane | | | < 0.2 | ug/L | |
| 27 | Nitrobenzene | | | < 0.2 | ug/L | |
| 28 | N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 | Isophorone | | | < 0.2 | ug/L | |
| 30 | 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 | 2,4-Dimethylphenol | | | < 0.2 | ug/L | |
| 32 | Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 | 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 | 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 | Naphthalene | | | < 0.2 | ug/L | |
| 36 | 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 | 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 | Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 | N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 | 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 | 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 | 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 | Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 | 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 | 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 | 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 | 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 | 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 | Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 | Acenaphthylene | | | < 0.2 | ug/L | |
| | | | | | | |

Extracted Method Blank

Extracted Date 04-26-2018 Extracted by EH, JR

| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
|-----------------------------|-------|---------|
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | 0.9 | 91 ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

B--Target analyte present in the method blank; any positive results for this analyte will be qualified by "B"

Sample ID: Ext LCS Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/24/2018 14:05

Target Compounds

| | | | Acc. Criteri |
|-------------|--------------------------|------------|--------------|
| Peaks: 91(' | Peak Name | % Recovery | % Rec. |
| 7 | 2-Fluorophenol (Surr.) | 55.5 | 15-80 |
| 8 | Nitrobenzene-d5 (Surr.) | 96.7 | 50-150 |
| 9 | 2-Fluorobiphenyl (Surr.) | 87.66 | 50-150 |
| 10 | 2-4-6-Tribromophenol (Su | 92.28 | 50-150 |
| 11 | Terphenyl-d14 (Surr.) | 87.93 | 50-150 |
| 12 | Methyl Methanesulfonate | 88.77 | 50-150 |
| 13 | Ethyl methanesulfonate | 104.8 | 50-150 |
| 14 | Phenol | 55.01 | 30-120 |
| 15 | Aniline | 64.32 | 50-150 |
| 16 | Bis(2-chloroethyl) ether | 102.16 | 50-150 |
| 17 | 2-Chlorophenol | 93.16 | 30-120 |
| 18 | 1,3-Dichlorobenzene | 58.62 | 50-150 |
| 19 | 1,4-Dichlorobenzene | 64.3 | 50-150 |
| 20 | Benzyl Alcohol | 107.37 | 50-150 |
| 21 | 1,2-Dichlorobenzene | 69.7 | 50-150 |
| 22 | 2-Methylphenol | 88.33 | 30-120 |
| 23 | 4-Methylphenol | 82.16 | 30-120 |
| 24 | Acetophenone | 110.35 | 50-150 |
| 25 | N-Nitroso-di-n-propylami | 109.67 | 50-150 |
| 26 | Hexachloroethane | 49.52 | 50-150 |
| 27 | Nitrobenzene | 104.8 | 50-150 |
| 28 | N-Nitrosopiperidine | 128.92 | 50-150 |
| 29 | Isophorone | 111.4 | 50-150 |
| 30 | 2-Nitrophenol | 98.21 | 30-120 |
| 31 | 2,4-Dimethylphenol | 67.01 | 30-120 |
| 32 | Bis(2-chloroethoxy) meth | 102.74 | 50-150 |
| 33 | 2-4-Dichlorophenol | 102.79 | 30-120 |
| 34 | 1-2-4-Trichlorobenzene | 73.71 | 50-150 |
| | Naphthalene | 91.45 | 50-150 |
| | 4-Chloroaniline | 85.3 | 50-150 |
| | 2-6-Dichlorophenol | 102.63 | 30-120 |
| | Hexachlorobutadiene | 45.72 | 50-150 |
| 39 | N-Nitrosodibutylamine | 106.6 | 50-150 |
| | 4-Chloro-3-methylphenol | 97.3 | 30-120 |
| | 2-Methylnaphthalene | 92.77 | 50-150 |
| | 1-2-4-5-Tetrachlorobenze | 82.49 | 50-150 |
| | Hexachlorocyclopentadien | 61.88 | 50-150 |
| | 2,4,6-Trichlorophenol | 101.28 | 30-120 |
| 45 | 2,4,5-Trichlorophenol | 103.86 | 30-120 |

Extracted LCS
Extracted Date 04-26-2018
Extracted by EH, JR

| 46 2-Chloronaphthalene | 96.49 | 50-150 |
|-----------------------------|--------|--------|
| 47 1-Chloronaphthalene | 102 | 50-150 |
| 48 2-Nitroaniline | 104.64 | 50-150 |
| 49 Dimethyl-phthalate | 107.27 | 50-150 |
| 50 Acenaphthylene | 100.72 | 50-150 |
| 51 2-6-Dinitrotoluene | 105.26 | 50-150 |
| 52 3-Nitroaniline | 94.78 | 50-150 |
| 53 Acenaphthene | 101.3 | 50-150 |
| 54 2-4-Dinitrophenol | 104.81 | 30-120 |
| 55 Dibenzofuran | 100.89 | 50-150 |
| 56 4-Nitrophenol | 42.64 | 30-120 |
| 57 Pentachlorobenzene | 87.47 | 50-150 |
| 58 2-4-Dinitrotoluene | 100.63 | 50-150 |
| 59 2-3-4-6-Tetrachloropheno | 102.87 | 30-120 |
| 60 Fluorene | 108.79 | 50-150 |
| 61 Diethylphthalate | 107.01 | 50-150 |
| 62 4-Chlorophenyl-phenyl et | 99.62 | 50-150 |
| 63 4-Nitroaniline | 104.1 | 50-150 |
| 64 4-6-Dintro-2-methylpheno | 104.77 | 30-120 |
| 65 Diphenylamine | 101.9 | 50-150 |
| 66 Azobenzene | 102.07 | 50-150 |
| 67 4-Bromophenyl-phenyl eth | 103.36 | 50-150 |
| 68 Hexachlorobenzene | 98.47 | 50-150 |
| 69 Pentachlorophenol | 104.82 | 30-120 |
| 70 Pentachloronitrobenzene | 98.18 | 50-150 |
| 71 Pronamide | 107.45 | 50-150 |
| 72 Phenanthrene | 102.59 | 50-150 |
| 73 Anthracene | 102.07 | 50-150 |
| 74 Carbazole | 106.12 | 50-150 |
| 75 Di-n-butylphthalate | 142.32 | 50-150 |
| 76 Fluoranthene | 105.34 | 50-150 |
| 77 Pyrene | 101.49 | 50-150 |
| 78 Dimethylaminoazobenzene | 104.95 | 50-150 |
| 79 Butylbenzyl phthalate | 111.1 | 50-150 |
| 80 Benz[a]anthracene | 110.89 | 50-150 |
| 81 Chrysene | 109.24 | 50-150 |
| 82 Bis(2-ethylhexyl) phthal | 121.48 | 50-150 |
| 83 Di-n-octyl phthalate | 108.01 | 50-150 |
| 84 Benzo[b]fluoranthene | 115.01 | 50-150 |
| 85 Dimethylbenzo(a)anthrace | 106.17 | 50-150 |
| 86 Benzo(k)fluoranthene | 118.74 | 50-150 |
| 87 Benzo(a)pyrene | 110.11 | 50-150 |
| 88 3-Methylcholanthrene | 103.41 | 50-150 |
| 89 Indeno[1-2-3-cd]pyrene | 120.84 | 50-150 |
| 90 Dibenz(a-h)anthracene | 118.35 | 50-150 |
| 91 Benzo(ghi)perylene | 122.93 | 50-150 |
| | | |

Sample Report (Standard)

MS Data File Information

Sample ID: 2018-1709 MS Extracted Sample MW-12S plus Spike

Operator: Ed Harris Extracted Date 04-26-2018
Instrument MS Instrument #1 Extracted by EH, JR

Instrument MS Instrument #1 Extracted by E Last Calibra 5/24/2018 11:27

5/24/2018 15:33

Target Compounds

Acquisition

| | | Acceptance | |
|-----------------------------|------------|-----------------|--|
| Peaks: 91(" Peak Name | % Recovery | Criteria % Rec. | Qualifier |
| 7 2-Fluorophenol (Surr.) | 41.7 | 15-80 | |
| 8 Nitrobenzene-d5 (Surr.) | 65.0 | 50-150 | |
| 9 2-Fluorobiphenyl (Surr.) | 55.2 | 50-150 | |
| 10 2-4-6-Tribromophenol (Su | 63.4 | 50-150 | |
| 11 Terphenyl-d14 (Surr.) | 67.3 | 50-150 | |
| 12 Methyl Methanesulfonate | 60.2 | 50-150 | |
| 13 Ethyl methanesulfonate | 72.7 | 50-150 | |
| 14 Phenol | 46.8 | 30-120 | |
| 15 Aniline | 32.6 | 50-150 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 16 Bis(2-chloroethyl) ether | 70.2 | 50-150 | |
| 17 2-Chlorophenol | 66.6 | 30-120 | |
| 18 1,3-Dichlorobenzene | 39.5 | 50-150 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 19 1,4-Dichlorobenzene | 48.4 | 50-150 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 20 Benzyl Alcohol | 67.3 | 50-150 | |
| 21 1,2-Dichlorobenzene | 53.6 | 50-150 | |
| 22 2-Methylphenol | 49.3 | 30-120 | RRPD of MS/MSD failed to meet acceptance criteria |
| 23 4-Methylphenol | 46.1 | 30-120 | RRPD of MS/MSD failed to meet acceptance criteria |
| 24 Acetophenone | 66.5 | 50-150 | |
| 25 N-Nitroso-di-n-propylami | 70.5 | 50-150 | |
| 26 Hexachloroethane | 38.6 | 50-150 | |
| 27 Nitrobenzene | 64.2 | 50-150 | |
| 28 N-Nitrosopiperidine | 86.6 | 50-150 | |
| 29 Isophorone | 72.7 | 50-150 | |
| 30 2-Nitrophenol | 69.1 | 30-120 | |
| 31 2,4-Dimethylphenol | 0.0 | 30-120 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery;RRPD failed |
| 32 Bis(2-chloroethoxy) meth | 64.3 | 50-150 | |
| 33 2-4-Dichlorophenol | 63.8 | 30-120 | |
| 34 1-2-4-Trichlorobenzene | 54.3 | 50-150 | |
| 35 Naphthalene | 64.6 | 50-150 | |
| 36 4-Chloroaniline | 49.4 | 50-150 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 37 2-6-Dichlorophenol | 66.2 | 30-120 | |
| 38 Hexachlorobutadiene | 37.1 | 50-150 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 39 N-Nitrosodibutylamine | 70.4 | 50-150 | |
| 40 4-Chloro-3-methylphenol | 63.3 | 30-120 | |
| 41 2-Methylnaphthalene | 63.9 | 50-150 | |
| 42 1-2-4-5-Tetrachlorobenze | 55.6 | 50-150 | |
| 43 Hexachlorocyclopentadien | 45.9 | 50-150 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 44 2,4,6-Trichlorophenol | 64.1 | 30-120 | |

| 45 2,4,5-Trichlorophenol | 61.4 | 30-120 | | |
|-----------------------------|-------|--------|---|--|
| 46 2-Chloronaphthalene | 61.6 | 50-150 | | |
| 47 1-Chloronaphthalene | 60.7 | 50-150 | | |
| 48 2-Nitroaniline | 70.5 | 50-150 | | |
| 49 Dimethyl-phthalate | 71.1 | 50-150 | | |
| 50 Acenaphthylene | 67.2 | 50-150 | | |
| 51 2-6-Dinitrotoluene | 65.7 | 50-150 | | |
| 52 3-Nitroaniline | 57.0 | 50-150 | | |
| 53 Acenaphthene | 67.0 | 50-150 | | |
| 54 2-4-Dinitrophenol | 77.7 | 30-120 | | |
| 55 Dibenzofuran | 68.1 | 50-150 | | |
| 56 4-Nitrophenol | 30.0 | 30-120 | RRPD of MS/MSD failed to meet acceptance criteria | |
| 57 Pentachlorobenzene | 59.9 | 50-150 | | |
| 58 2-4-Dinitrotoluene | 68.2 | 50-150 | | |
| 59 2-3-4-6-Tetrachloropheno | 65.4 | 30-120 | | |
| 60 Fluorene | 66.0 | 50-150 | | |
| 61 Diethylphthalate | 68.5 | 50-150 | | |
| 62 4-Chlorophenyl-phenyl et | 63.9 | 50-150 | | |
| 63 4-Nitroaniline | 51.1 | 50-150 | | |
| 64 4-6-Dintro-2-methylpheno | 73.7 | 30-120 | | |
| 65 Diphenylamine | 66.0 | 50-150 | | |
| 66 Azobenzene | 66.3 | 50-150 | | |
| 67 4-Bromophenyl-phenyl eth | 68.2 | 50-150 | | |
| 68 Hexachlorobenzene | 66.4 | 50-150 | | |
| 69 Pentachlorophenol | 74.2 | 30-120 | | |
| 70 Pentachloronitrobenzene | 63.4 | 50-150 | | |
| 71 Pronamide | 71.2 | 50-150 | | |
| 72 Phenanthrene | 65.2 | 50-150 | | |
| 73 Anthracene | 62.6 | 50-150 | | |
| 74 Carbazole | 62.3 | 50-150 | | |
| 75 Di-n-butylphthalate | 69.5 | 50-150 | | |
| 76 Fluoranthene | 64.8 | 50-150 | | |
| 77 Pyrene | 67.1 | 50-150 | | |
| 78 Dimethylaminoazobenzene | 87.8 | 50-150 | | |
| 79 Butylbenzyl phthalate | 108.1 | 50-150 | | |
| 80 Benz[a]anthracene | 101.9 | 50-150 | | |
| 81 Chrysene | 106.8 | 50-150 | | |
| 82 Bis(2-ethylhexyl) phthal | 101.9 | 50-150 | | |
| 83 Di-n-octyl phthalate | 94.9 | 50-150 | | |
| 84 Benzo[b]fluoranthene | 106.9 | 50-150 | | |
| 85 Dimethylbenzo(a)anthrace | 99.7 | 50-150 | | |
| 86 Benzo(k)fluoranthene | 104.3 | 50-150 | | |
| 87 Benzo(a)pyrene | 106.4 | 50-150 | | |
| 88 3-Methylcholanthrene | 95.6 | 50-150 | | |
| 89 Indeno[1-2-3-cd]pyrene | 107.7 | 50-150 | | |
| 90 Dibenz(a-h)anthracene | 107.2 | 50-150 | | |
| 91 Benzo(ghi)perylene | 112.0 | 50-150 | RRPD of MS/MSD failed to meet acceptance criteria | |
| | | | | |

Sample ID: 2018-1709 MSD

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/24/2018 16:03

Target Compounds

| Target Compounds | | | Acceptance | RPD | |
|-----------------------------|------------|---------|-----------------|------|--|
| Peaks: 91("Peak Name | % Recovery | RPD (%) | Criteria % Rec. | | |
| 7 2-Fluorophenol (Surr.) | 41.7 | () | 15-80 | 0-20 | Qualifier |
| 8 Nitrobenzene-d5 (Surr.) | 65.0 | | 50-150 | 0-20 | |
| 9 2-Fluorobiphenyl (Surr.) | 55.2 | | 50-150 | 0-20 | |
| 10 2-4-6-Tribromophenol (Su | 63.4 | | 50-150 | 0-20 | |
| 11 Terphenyl-d14 (Surr.) | 67.3 | | 50-150 | 0-20 | |
| 12 Methyl Methanesulfonate | 61.4 | 1.9 | 50-150 | 0-20 | |
| 13 Ethyl methanesulfonate | 71.8 | 1.4 | 50-150 | 0-20 | |
| 14 Phenol | 39.1 | 17.9 | | 0-20 | |
| 15 Aniline | 38.9 | 17.8 | 50-150 | 0-20 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 16 Bis(2-chloroethyl) ether | 69.5 | 1.0 | 50-150 | 0-20 | |
| 17 2-Chlorophenol | 66.7 | 0.2 | 30-120 | 0-20 | |
| 18 1,3-Dichlorobenzene | 37.1 | 6.3 | 50-150 | 0-20 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 19 1,4-Dichlorobenzene | 45.2 | 6.9 | 50-150 | 0-20 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recovery |
| 20 Benzyl Alcohol | 69.2 | 2.8 | 50-150 | 0-20 | |
| 21 1,2-Dichlorobenzene | 52.8 | 1.4 | 50-150 | 0-20 | |
| 22 2-Methylphenol | 65.7 | 28.5 | 30-120 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria; |
| 23 4-Methylphenol | 66.0 | 35.6 | 30-120 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria; |
| 24 Acetophenone | 72.1 | 8.2 | 50-150 | 0-20 | |
| 25 N-Nitroso-di-n-propylami | 68.5 | 2.9 | 50-150 | 0-20 | |
| 26 Hexachloroethane | 37.5 | 2.9 | 50-150 | 0-20 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recover |
| 27 Nitrobenzene | 70.1 | 8.8 | 50-150 | 0-20 | |
| 28 N-Nitrosopiperidine | 85.3 | 1.5 | 50-150 | 0-20 | |
| 29 Isophorone | 72.0 | 0.9 | 50-150 | 0-20 | |
| 30 2-Nitrophenol | 68.9 | 0.2 | 30-120 | 0-20 | |
| 31 2,4-Dimethylphenol | 56.7 | 200.0 | 30-120 | 0-20 | RRPD of MS/MSD failed to meet acceptance criteria; |
| 32 Bis(2-chloroethoxy) meth | 65.9 | 2.4 | 50-150 | 0-20 | |
| 33 2-4-Dichlorophenol | 70.3 | 9.7 | 30-120 | 0-20 | |
| 34 1-2-4-Trichlorobenzene | 55.3 | 1.8 | 50-150 | 0-20 | |
| 35 Naphthalene | 65.4 | 1.2 | 50-150 | 0-20 | |
| 36 4-Chloroaniline | 59.0 | 17.8 | 50-150 | 0-20 | |
| 37 2-6-Dichlorophenol | 69.3 | 4.6 | 30-120 | 0-20 | |
| 38 Hexachlorobutadiene | 34.1 | 8.3 | 50-150 | 0-20 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recover |
| 39 N-Nitrosodibutylamine | 76.2 | 7.9 | 50-150 | 0-20 | |
| 40 4-Chloro-3-methylphenol | 72.2 | 13.1 | 30-120 | 0-20 | |
| 41 2-Methylnaphthalene | 66.7 | 4.4 | 50-150 | 0-20 | |
| 42 1-2-4-5-Tetrachlorobenze | 52.5 | 5.6 | 50-150 | 0-20 | |
| 43 Hexachlorocyclopentadien | 43.1 | 6.4 | 50-150 | 0-20 | MAnalyte failed to meet acceptance criteria for MS and/or MSD recover |
| 44 2,4,6-Trichlorophenol | 67.8 | 5.6 | 30-120 | 0-20 | |
| 45 2,4,5-Trichlorophenol | 69.2 | 12.0 | 30-120 | 0-20 | |

Extracted Sample MW-12S plus Spike

Extracted Date 04-26-2018 Extracted by EH, JR

| 46 2-Chloronaphthalene | 63.5 | 3.0 | 50-150 | 0-20 |
|-----------------------------|-------|------|--------|------|
| 47 1-Chloronaphthalene | 65.1 | 7.0 | 50-150 | 0-20 |
| 48 2-Nitroaniline | 75.0 | 6.1 | 50-150 | 0-20 |
| 49 Dimethyl-phthalate | 71.5 | 0.6 | 50-150 | 0-20 |
| 50 Acenaphthylene | 67.9 | 0.9 | 50-150 | 0-20 |
| 51 2-6-Dinitrotoluene | 70.6 | 7.2 | 50-150 | 0-20 |
| 52 3-Nitroaniline | 66.4 | 15.3 | 50-150 | 0-20 |
| 53 Acenaphthene | 66.9 | 0.1 | 50-150 | 0-20 |
| 54 2-4-Dinitrophenol | 96.3 | 21.3 | 30-120 | 0-20 |
| 55 Dibenzofuran | 70.3 | 3.2 | 50-150 | 0-20 |
| 56 4-Nitrophenol | 46.0 | 24.4 | 30-120 | 0-20 |
| 57 Pentachlorobenzene | 60.5 | 1.0 | 50-150 | 0-20 |
| 58 2-4-Dinitrotoluene | 72.6 | 6.3 | 50-150 | 0-20 |
| 59 2-3-4-6-Tetrachloropheno | 74.0 | 12.3 | 30-120 | 0-20 |
| 60 Fluorene | 70.7 | 6.9 | 50-150 | 0-20 |
| 61 Diethylphthalate | 72.4 | 5.6 | 50-150 | 0-20 |
| 62 4-Chlorophenyl-phenyl et | 67.2 | 5.0 | 50-150 | 0-20 |
| 63 4-Nitroaniline | 55.7 | 8.5 | 50-150 | 0-20 |
| 64 4-6-Dintro-2-methylpheno | 77.1 | 4.6 | 30-120 | 0-20 |
| 65 Diphenylamine | 69.4 | 4.9 | 50-150 | 0-20 |
| 66 Azobenzene | 66.7 | 0.7 | 50-150 | 0-20 |
| 67 4-Bromophenyl-phenyl eth | 64.1 | 6.3 | 50-150 | 0-20 |
| 68 Hexachlorobenzene | 62.9 | 5.5 | 50-150 | 0-20 |
| 69 Pentachlorophenol | 77.0 | 3.7 | 30-120 | 0-20 |
| 70 Pentachloronitrobenzene | 63.2 | 0.2 | 50-150 | 0-20 |
| 71 Pronamide | 74.3 | 4.3 | 50-150 | 0-20 |
| 72 Phenanthrene | 69.9 | 6.8 | 50-150 | 0-20 |
| 73 Anthracene | 70.3 | 11.6 | 50-150 | 0-20 |
| 74 Carbazole | 63.7 | 2.3 | 50-150 | 0-20 |
| 75 Di-n-butylphthalate | 71.7 | 3.2 | 50-150 | 0-20 |
| 76 Fluoranthene | 71.6 | 9.8 | 50-150 | 0-20 |
| 77 Pyrene | 73.8 | 9.5 | 50-150 | 0-20 |
| 78 Dimethylaminoazobenzene | 102.0 | 14.9 | 50-150 | 0-20 |
| 79 Butylbenzyl phthalate | 111.3 | 3.0 | 50-150 | 0-20 |
| 80 Benz[a]anthracene | 106.3 | 4.3 | 50-150 | 0-20 |
| 81 Chrysene | 109.3 | 2.2 | 50-150 | 0-20 |
| 82 Bis(2-ethylhexyl) phthal | 102.1 | 0.2 | 50-150 | 0-20 |
| 83 Di-n-octyl phthalate | 95.2 | 0.4 | 50-150 | 0-20 |
| 84 Benzo[b]fluoranthene | 97.8 | 8.9 | 50-150 | 0-20 |
| 85 Dimethylbenzo(a)anthrace | 93.4 | 6.5 | 50-150 | 0-20 |
| 86 Benzo(k)fluoranthene | 97.5 | 6.8 | 50-150 | 0-20 |
| 87 Benzo(a)pyrene | 96.8 | 9.5 | 50-150 | 0-20 |
| 88 3-Methylcholanthrene | 95.9 | 0.3 | 50-150 | 0-20 |
| 89 Indeno[1-2-3-cd]pyrene | 91.2 | 16.5 | 50-150 | 0-20 |
| 90 Dibenz(a-h)anthracene | 89.7 | 17.7 | 50-150 | 0-20 |
| 91 Benzo(ghi)perylene | 90.7 | 21.0 | 50-150 | 0-20 |
| | 55.7 | 21.0 | 55 156 | 0 -0 |

R--RPD of MS/MSD failed to meet accepance criteria

R--RPD of MS/MSD failed to meet acceptance criteria;

Sample ID: 2018-1781 Operator: Ed Harris

Instrument MS Instrument #1

Extracted MW-S5
Extracted Date 04-30-2018
Extracted by EH, JR

Last Calibra 5/24/2018 11:27 Acquisition 5/29/2018 11:48

| | | Acceptance | | | |
|-----------------------------|------------|-----------------|--------|--------------|--|
| Peaks: 91("Peak Name | % Recovery | Criteria % Rec. | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 36.4 | | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 56.8 | | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 61.2 | | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 41.4 | | | ug/L | SSurrogate recovery does not meet accepance criteria; all analytes associated with this surrogate will be qualified as "estimated" |
| 11 Terphenyl-d14 (Surr.) | 81.1 | 50-150 | | ug/L | Analytes associated with this surrogate may be biased low |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| 53 Acenaphthene | | | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | EEstimated result due to surrogate compound failure |
| 55 Dibenzofuran | | | < 0.2 | ug/L | EEstimated result due to surrogate compound failure |
| 56 4-Nitrophenol | | | < 1.0 | ug/L | EEstimated result due to surrogate compound failure |

| 57 Pentachlorobenzene | < 0.2 | ug/L |
|-----------------------------|-------|------|
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure E--Estimated result due to surrogate compound failure

Sample ID:2018-1782Extracted MW-01SOperator:Ed HarrisExtracted Date 04-30-2018Instrument ID:MS Instrument #1Extracted by EH, JR

Last Calibration: 5/24/2018 11:27 Acquisition Date: 5/29/2018 12:17

| Target Compo | | | Acceptance | Reported | | |
|---------------|-----------------------------|------------|-----------------|----------|--------------|--|
| Peaks: 91("#" | Peak Name | % Recovery | Criteria % Rec. | • | Amount Units | Qualifier |
| | 7 2-Fluorophenol (Surr.) | 36.6 | 15-80 | | ug/L | |
| | 8 Nitrobenzene-d5 (Surr.) | 62.7 | 50-150 | | ug/L | |
| | 9 2-Fluorobiphenyl (Surr.) | 63.1 | 50-150 | | ug/L | |
| | 10 2-4-6-Tribromophenol (Su | 55.1 | 50-150 | | ug/L | |
| | 11 Terphenyl-d14 (Surr.) | 82.2 | 50-150 | | ug/L | |
| | 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| | 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| | 14 Phenol | | | < 0.2 | ug/L | |
| | 15 Aniline | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| | 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| | 18 1,3-Dichlorobenzene | | | 2.3 | 3 ug/L | |
| | 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 20 Benzyl Alcohol | | | 0.39 | 9 ug/L | |
| | 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 22 2-Methylphenol | | | < 0.2 | ug/L | |
| | 23 4-Methylphenol | | | < 0.2 | ug/L | |
| | 24 Acetophenone | | | < 0.2 | ug/L | |
| | 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| | 26 Hexachloroethane | | | < 0.2 | ug/L | |
| | 27 Nitrobenzene | | | < 0.2 | ug/L | |
| | 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| | 29 Isophorone | | | < 0.2 | ug/L | |
| | 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| | 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| | 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| | 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| | 35 Naphthalene | | | < 0.2 | ug/L | |
| | 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| | 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| | 38 Hexachlorobutadiene | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| | 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| | 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| | 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| | 43 Hexachlorocyclopentadien | 1 | | < 0.2 | ug/L | |
| | 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| | 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| | 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |

| 47 | 1-Chloronaphthalene | < 0.2 | ug/L |
|----|--------------------------|-------|------|
| 48 | 2-Nitroaniline | < 0.2 | ug/L |
| 49 | Dimethyl-phthalate | < 0.2 | ug/L |
| 50 | Acenaphthylene | < 0.2 | ug/L |
| 51 | 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 | 3-Nitroaniline | < 0.2 | ug/L |
| 53 | Acenaphthene | < 0.2 | ug/L |
| 54 | 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 | Dibenzofuran | < 0.2 | ug/L |
| 56 | 4-Nitrophenol | < 1.0 | ug/L |
| 57 | Pentachlorobenzene | < 0.2 | ug/L |
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| | Benzo(ghi)perylene | < 0.2 | ug/L |
| | ·- ·- · | | - |

Sample ID: 2018-1783 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/29/2018 12:47

Target Compounds

| | | Acceptance I | Reported | | |
|-----------------------------|------------|-------------------|----------|--------------|--|
| Peaks: 91("Peak Name | % Recovery | Criteria % Rec. I | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 32.7 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 57.4 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 57.5 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 53.2 | 50-150 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 90.1 | 50-150 | | ug/L | |
| 12 Methyl Methanesulfonate | | • | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | • | < 0.2 | ug/L | |
| 14 Phenol | | • | < 0.2 | ug/L | |
| 15 Aniline | | • | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 16 Bis(2-chloroethyl) ether | | • | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | • | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | 1.0 | 7 ug/L | |
| 19 1,4-Dichlorobenzene | | • | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | 0.2 | 8 ug/L | |
| 21 1,2-Dichlorobenzene | | • | < 0.2 | ug/L | |
| 22 2-Methylphenol | | • | < 0.2 | ug/L | |
| 23 4-Methylphenol | | • | < 0.2 | ug/L | |
| 24 Acetophenone | | • | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | • | < 0.2 | ug/L | |
| 26 Hexachloroethane | | • | < 0.2 | ug/L | |
| 27 Nitrobenzene | | • | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | • | < 0.2 | ug/L | |
| 29 Isophorone | | • | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | • | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | • | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | • | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | • | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | • | < 0.2 | ug/L | |
| 35 Naphthalene | | • | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | • | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | • | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 39 N-Nitrosodibutylamine | | • | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | • | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | • | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | • | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | • | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | • | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | • | < 0.2 | ug/L | |

Extracted MW-01D

Extracted Date 04-30-2018 Extracted by EH, JR

| 46 2-Chloronaphthalene | < 0.2 | ug/L |
|-----------------------------|-------|------|
| 47 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 2-Nitroaniline | < 0.2 | ug/L |
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

Sample ID: 2018-1784 50mL

Extracted RW-7 50mL Operator: Ed Harris Extracted Date 04-30-2018 Instrument MS Instrument #1 Extracted by EH, JR

Last Calibra ########

Acquisition ########

Target Compounds

Acceptance Reported Peaks

| | | / | Acceptanc | €Reported | | |
|-------|---------------------|-----------|------------|-----------|--------------|--|
| ks: 9 |)1("Peak Nam∈% Re | ecoven (| Criteria % | F Result | Amount Units | Qualifier |
| | 7 2-Fluoroph | 36.4 | 15-80 | | ug/L | |
| | 8 Nitrobenze | 61.3 | 50-150 | | ug/L | |
| | 9 2-Fluorobir | 58.1 | 50-150 | | ug/L | |
| | 10 2-4-6-Tribr | 40.8 | 50-150 | | ug/L | SSurrogate recovery does not meet acceptance criteria; |
| | 11 Terphenyl- | 83.6 | 50-150 | | ug/L | all analytes associated with this surrogate will be qualified |
| | 12 Methyl Methan | esulfon | ate | <2.0 | ug/L | as "estimated" and results MAY be biased low |
| | 13 Ethyl methanes | ulfonate | 2 | <2.0 | ug/L | |
| | 14 Phenol | | | <2.0 | ug/L | |
| | 15 Aniline | | | <2.0 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 16 Bis(2-chloroethy | vl) ethei | r | <2.0 | ug/L | |
| | 17 2-Chlorophenol | | | <2.0 | ug/L | |
| | 18 1,3-Dichloroben | nzene | | <2.0 | ug/L | |
| | 19 1,4-Dichloroben | nzene | | <2.0 | ug/L | |
| | 20 Benzyl Alcohol | | | <2.0 | ug/L | |
| | 21 1,2-Dichloroben | nzene | | <2.0 | ug/L | |
| | 22 2-Methylphenol | | | <2.0 | ug/L | |
| | 23 4-Methylphenol | | | <2.0 | ug/L | |
| | 24 Acetophenone | | | <2.0 | ug/L | |
| | 25 N-Nitroso-di-n-r | oropylai | mi | <2.0 | ug/L | |
| | 26 Hexachloroetha | ine | | <2.0 | ug/L | |
| | 27 Nitrobenzene | | | <2.0 | ug/L | |
| | 28 N-Nitrosopiperio | dine | | <2.0 | ug/L | |
| | 29 Isophorone | | | <2.0 | ug/L | |
| | 30 2-Nitrophenol | | | <4.0 | ug/L | |
| | 31 2,4-Dimethylpho | enol | | <2.0 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 32 Bis(2-chloroetho | | th | <2.0 | ug/L | |
| | 33 2-4-Dichlorophe | | | <2.0 | ug/L | |
| | 34 1-2-4-Trichlorob | | : | <2.0 | ug/L | |
| | 35 Naphthalene | | | < 0.2 | ug/L | |
| | 36 4-Chloroaniline | | | <2.0 | ug/L | |
| | 37 2-6-Dichlorophe | enol | | <2.0 | ug/L | |
| | 38 Hexachlorobuta | | | <2.0 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 39 N-Nitrosodibuty | /lamine | | <2.0 | ug/L | |
| | 40 4-Chloro-3-meth | | ol | <2.0 | ug/L | |
| | 41 2-Methylnaphth | | | <2.0 | ug/L | |
| | 42 1-2-4-5-Tetrach | | ze | <2.0 | ug/L | |
| | 43 Hexachlorocyclo | | | <2.0 | ug/L | |
| | 44 2,4,6-Trichlorop | | | <2.0 | ug/L | |
| | 45 2,4,5-Trichlorop | | | <2.0 | ug/L | |
| | 46 2-Chloronaphth | | | <2.0 | ug/L | |
| | 47 1-Chloronaphth | | | <2.0 | ug/L | |
| | 48 2-Nitroaniline | | | <2.0 | ug/L | |
| | 49 Dimethyl-phtha | late | | <2.0 | ug/L | |
| | 50 Acenaphthylene | | | <2.0 | ug/L | |
| | 51 2-6-Dinitrotolue | | | <2.0 | ug/L | |
| | 52 3-Nitroaniline | - | | <2.0 | ug/L | |
| | | | | | -0/- | |

| 53 Acenaphthene | | | 44 ug/L | Over Range; Analyzed a dilution |
|-----------------------------------|----------------|------------|--------------|--|
| 54 2-4-Dinitrophenol | | <20.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 55 Dibenzofuran | | 1 | 4.1 ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 56 4-Nitrophenol | | <10.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 57 Pentachlorobenzer | ne | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 58 2-4-Dinitrotoluene | | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 59 2-3-4-6-Tetrachlore | opheno | <4.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 60 Fluorene | | 4. | .24 ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 61 Diethylphthalate | | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 62 4-Chlorophenyl-ph | envl et | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 63 4-Nitroaniline | • | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 64 4-6-Dintro-2-methy | vlpheno | <20.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 65 Diphenylamine | , , | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 66 Azobenzene | | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 67 4-Bromophenyl-ph | envl eth | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 68 Hexachlorobenzen | | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 69 Pentachloropheno | | <10.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 70 Pentachloronitrobe | | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 71 Pronamide | chizene | <2.0 | ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 72 Phenanthrene | | <2.0 | ug/L ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 73 Anthracene | | <2.0 | ug/L ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 74 Carbazole | | <2.0 | ug/L ug/L | EEstimated result due to surrogate compound failure; analyte MAY be biased low |
| 75 Di-n-butylphthalat | | | .23 ug/L | B= Present in the Method Blank at 0.77 ug/L; result MAY be biased high |
| 76 Fluoranthene | .e | <2.0 | ug/L | b- Present in the Method Blank at 0.77 ug/L, result MAT be blased high |
| | | | _ | |
| 77 Pyrene | h | <2.0 | ug/L | |
| 78 Dimethylaminoazo | | <2.0 | ug/L | |
| 79 Butylbenzyl phthal | | <2.0 | ug/L | |
| 80 Benz[a]anthracene | | <2.0 | ug/L | |
| 81 Chrysene | | <2.0 | ug/L | |
| 82 Bis(2-ethylhexyl) p | | | .23 ug/L | |
| 83 Di-n-octyl phthalat | | <2.0 | ug/L | |
| 84 Benzo[b]fluoranthe | | <2.0 | ug/L | |
| 85 Dimethylbenzo(a)a | | <2.0 | ug/L | |
| 86 Benzo(k)fluoranthe | ene | <2.0 | ug/L | |
| 87 Benzo(a)pyrene | | <2.0 | ug/L | |
| 88 3-Methylcholanthr | | <2.0 | ug/L | |
| 89 Indeno[1-2-3-cd]p _\ | | <2.0 | ug/L | |
| 90 Dibenz(a-h)anthrac | | <2.0 | ug/L | |
| 91 Benzo(ghi)perylene | 9 | <2.0 | ug/L | |
| nple ID: 2018-1784 5 mL | | Extracte | ed RW-7 5n | nL |
| erator: Ed Harris | | Extracte | ed Date 04-3 | 30-2018 |
| trument MS Instrument #1 | | Extracte | ed by EH, JR | |
| t Calibra ####### | | | | |
| uisition ####### | | | | |
| get Compounds | | | | |
| | | c: Reporte | | |
| ıks: 91(" Peak Nam∈% Reco | ver Criteria % | FResult | Amount | t Units |
| 7 2-Fluoroph 2 | 9.2 15-80 | | ug/L | |
| 8 Nitrobenze 6 | 2.6 50-150 | | ug/L | |
| 9 2-Fluorobi; 6 | 2.7 50-150 | | ug/L | |
| 10 2-4-6-Tribr 3 | 2.6 50-150 | | ug/L | SSurrogate did not recover within accepance range; |
| 11 Torobonul O | 0.7 F0.1F0 | | /1 | Accomplete and is not associated with this surrogate, so no data flagged as a |

ug/L

45.5 ug/L

11 Terphenyl-

53 Acenaphthene

99.7 50-150

45.386

Acenaphthene is not associated with this surrogate, so no data flagged as a result of this failure

Sample ID: 2018-1785
Operator: Ed Harris
Instrument ID MS Instrument #1

Extracted MW-17S Extracted Date 04-30-2018 Extracted by EH, JR

Last Calibratic 5/24/2018 11:27 Acquisition Da 5/29/2018 14:15

| | | Acceptance | Reported | | |
|-----------------------------|------------|--------------|----------|--------------|--|
| Peaks: 91("#" Peak Name | % Recovery | Criteria % R | | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 41.0 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 53.4 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 56.8 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 49.8 | 50-150 | | ug/L | S=surrogate did not recover within acceptance criteria; all analytes associated with this surrogate will be qualified as "estimated" |
| 11 Terphenyl-d14 (Surr.) | 75.0 | 50-150 | | ug/L | analytes associated with this surrogate MAY have results biased LOW |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; results MAY be biased low |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | 0.78 | 3 ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; results MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; results MAY be biased low |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| 53 Acenaphthene | | | | 5 ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | EEstimated result due to surrogate compound failure; results MAY be biased low |
| 55 Dibenzofuran | | | < 0.2 | ug/L | EEstimated result due to surrogate compound failure; results MAY be biased low |
| | | | < 1.0 | ug/L | EEstimated result due to surrogate compound failure; results MAY be biased low |

| 57 Pentachlorobenzene | < 0.2 | ug/L |
|-----------------------------|-------|----------|
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | | .22 ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |

E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low E--Estimated result due to surrogate compound failure; results MAY be biased low
 Sample ID:
 2018-1786 50mL

 Operator:
 Ed Harris

 Instrument ID:
 MS Instrument #1

 Last Calibration:
 5/24/2018 11:27

 Acquisition Date:
 5/29/2018 14:45

Extracted RW-1 50mL Extracted Date 04-30-2018 Extracted by EH, JR

| rarget Compou | nas | | Acceptance | Reported | | | |
|---------------|--|------------|-----------------|--------------|--------------|--|---|
| Peaks: 91("#" | Peak Name | % Recovery | Criteria % Rec. | Result | Amount Units | Qualifier | |
| reaks. 51(# | 7 2-Fluorophenol (Surr.) | 28.4 | | nesuit | ug/L | Qualifier | |
| | 8 Nitrobenzene-d5 (Surr.) | 54.6 | | | ug/L | | |
| | 9 2-Fluorobiphenyl (Surr.) | 49.1 | | | ug/L | | |
| | 10 2-4-6-Tribromophenol (Su | 39.4 | | | ug/L | S=Surrogate failed to recover | |
| | 11 Terphenyl-d14 (Surr.) | 87.6 | 5 50-150 | | ug/L | within acceptance criteria; | |
| | 12 Methyl Methanesulfonate | | | <2.0 | ug/L | all analytes associated with | |
| | 13 Ethyl methanesulfonate | | | <2.0 | ug/L | failed surrogate will be qualified | |
| | 14 Phenol | | | <2.0 | ug/L | as "Estimated" and may be biased low | |
| | 15 Aniline | | | <2.0 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low | |
| | 16 Bis(2-chloroethyl) ether | | | <2.0 | ug/L | | |
| | 17 2-Chlorophenol | | | <2.0 | ug/L | | |
| | 18 1,3-Dichlorobenzene | | | <2.0 | ug/L | | |
| | 19 1,4-Dichlorobenzene | | | <2.0 | ug/L | | |
| | 20 Benzyl Alcohol | | | <2.0 | ug/L | | |
| | 21 1,2-Dichlorobenzene | | | <2.0 | ug/L | | |
| | 22 2-Methylphenol | | | <2.0 | ug/L | | |
| | 23 4-Methylphenol | | | <2.0 | ug/L | | |
| | 24 Acetophenone | | | <2.0 <2.0 | ug/L ug/L | | |
| | 25 N-Nitroso-di-n-propylami 26 Hexachloroethane | | | <2.0 | ug/L ug/L | | |
| | 27 Nitrobenzene | | | <2.0 | ug/L ug/L | | |
| | 28 N-Nitrosopiperidine | | | <2.0 | ug/L | | |
| | 29 Isophorone | | | <2.0 | ug/L | | |
| | 30 2-Nitrophenol | | | <4.0 | ug/L | | |
| | 31 2,4-Dimethylphenol | | | <2.0 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low | |
| | 32 Bis(2-chloroethoxy) meth | | | <2.0 | ug/L | | |
| | 33 2-4-Dichlorophenol | | | <2.0 | ug/L | | |
| | 34 1-2-4-Trichlorobenzene | | | <2.0 | ug/L | | |
| | 35 Naphthalene | | | 2.47 | ug/L | | |
| | 36 4-Chloroaniline | | | <2.0 | ug/L | | |
| | 37 2-6-Dichlorophenol | | | <2.0 | ug/L | | |
| | 38 Hexachlorobutadiene | | | <2.0 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low | |
| | 39 N-Nitrosodibutylamine | | | <2.0 | ug/L | | |
| | 40 4-Chloro-3-methylphenol | | | <2.0 | ug/L | | |
| | 41 2-Methylnaphthalene | | | <2.0 | ug/L | | |
| | 42 1-2-4-5-Tetrachlorobenze | | | <2.0 | ug/L | | |
| | 43 Hexachlorocyclopentadien | | | <2.0 | ug/L | | |
| | 44 2,4,6-Trichlorophenol | | | <2.0 | ug/L | | |
| | 45 2,4,5-Trichlorophenol 46 2-Chloronaphthalene | | | <2.0 <2.0 | ug/L | | |
| | 47 1-Chloronaphthalene | | | <2.0 | ug/L ug/L | | |
| | 48 2-Nitroaniline | | | <2.0 | ug/L | | |
| | 49 Dimethyl-phthalate | | | <2.0 | ug/L | | |
| | 50 Acenaphthylene | | | <2.0 | ug/L | | |
| | 51 2-6-Dinitrotoluene | | | <2.0 | ug/L | | |
| | 52 3-Nitroaniline | | | <2.0 | ug/L | | |
| | 53 Acenaphthene | | | 184 | ug/L | Over Range; requires dilution | |
| | 54 2-4-Dinitrophenol | | | < 20.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low | |
| | 55 Dibenzofuran | | | 89 | ug/L | Over Range; requires dilution | E=Estimated result due to surrogate failure; result MAY be biased low |
| | 56 4-Nitrophenol | | | < 10.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low | |
| | 57 Pentachlorobenzene | | | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low | |
| | 58 2-4-Dinitrotoluene | | | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low | |
| | 59 2-3-4-6-Tetrachloropheno | | | <4.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low | |
| | 60 Fluorene | | | 86.5 | ug/L | Over Range; requires dilution | E=Estimated result due to surrogate failure; result MAY be biased low |
| | 61 Diethylphthalate | | | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low | |

| 62 4-Chlorophenyl-phenyl et | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
|-----------------------------|--------|------|--|
| 63 4-Nitroaniline | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 64 4-6-Dintro-2-methylpheno | < 20.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 65 Diphenylamine | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 66 Azobenzene | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 67 4-Bromophenyl-phenyl eth | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 68 Hexachlorobenzene | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 69 Pentachlorophenol | < 10.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 70 Pentachloronitrobenzene | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 71 Pronamide | <2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 72 Phenanthrene | 83 | ug/L | Over Range; requires dilution |
| 73 Anthracene | 5.39 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 74 Carbazole | 15.6 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 75 Di-n-butylphthalate | 4.24 | ug/L | B= Present in the Method Blank at 0.77 ug/L; result MAY be biased high |
| 76 Fluoranthene | 42.2 | ug/L | Over Range; requires dilution |
| 77 Pyrene | 25.1 | ug/L | |
| 78 Dimethylaminoazobenzene | <2.0 | ug/L | |
| 79 Butylbenzyl phthalate | <2.0 | ug/L | |
| 80 Benz[a]anthracene | 5.5 | ug/L | |
| 81 Chrysene | 4.94 | ug/L | |
| 82 Bis(2-ethylhexyl) phthal | 2.44 | ug/L | |
| 83 Di-n-octyl phthalate | <2.0 | ug/L | |
| 84 Benzo[b]fluoranthene | <2.0 | ug/L | |
| 85 Dimethylbenzo(a)anthrace | <2.0 | ug/L | |
| 86 Benzo(k)fluoranthene | 2.61 | ug/L | |
| 87 Benzo(a)pyrene | 2.34 | ug/L | |
| 88 3-Methylcholanthrene | <2.0 | ug/L | |
| 89 Indeno[1-2-3-cd]pyrene | <2.0 | ug/L | |
| 90 Dibenz(a-h)anthracene | <2.0 | ug/L | |
| 91 Benzo(ghi)perylene | <2.0 | ug/L | |
| | | | |
| | | | |

E=Estimated result due to surrogate failure

 Sample ID:
 2018-1786 5mL
 Extracted RW-1 5mL

 Operator:
 Ed Harris
 Extracted Date 04-30-2018

 Instrument ID:
 MS Instrument #1
 Extracted by EH, JR

Last Calibration: 5/24/2018 11:27 Acquisition Date: 5/29/2018 15:15

| raiget compou | | | | | | |
|---------------|-----------------------------|----------------|-----------------|----------|--------------|--|
| | | Acceptance | Reported | l | | |
| Peaks: 91("#" | Peak Name | % Recovery | Criteria % Rec. | Result | Amount Units | Qualifier |
| | 7 2-Fluorophenol (Surr.) | 37.2 | 15-80 | | ug/L | |
| | 8 Nitrobenzene-d5 (Surr.) | 61.3 | 50-150 | | ug/L | |
| | 9 2-Fluorobiphenyl (Surr.) | 61.7 | 50-150 | | ug/L | |
| | 10 2-4-6-Tribromophenol (Su | 49.4 | 50-150 | | ug/L | S= Surrogate failure; associated analytes will be qualified as "estimated" |
| | 11 Terphenyl-d14 (Surr.) | 89.0 | 50-150 | | ug/L | |
| | 53 Acenaphthene | | | 18 | 4 ug/L | |
| | 55 Dibenzofuran | | | 106 ug/L | 6 ug/L | E=Estimated result due to surrogate failure |
| | 60 Fluorene | | | 10 | 103 ug/L | E=Estimated result due to surrogate failure |
| | 72 Phenanthrene | 2 Phenanthrene | | | 4 ug/L | E=Estimated result due to surrogate failure |
| | 76 Fluoranthene | | | 24. | .7 ug/L | E=Estimated result due to surrogate failure |

Sample ID: 2018-1787

Operator: Ed Harris
Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/29/2018 15:44

Target Compounds

| | | Acceptance | Reported | | |
|-----------------------------|------------|-----------------|----------|--------------|--|
| Peaks: 91(" Peak Name | % Recovery | Criteria % Rec. | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 37.4 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 64.2 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 63.3 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 57.7 | 50-150 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 75.4 | 50-150 | | ug/L | |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |

Extracted EB-7

Extracted by EH, JR

Extracted Date 04-30-2018

| 48 2-Nitroaniline | < 0.2 | ug/L |
|-----------------------------|-------|------|
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

Sample ID: 2018-1788

Extracted EB-8 Extracted Date 04-30-2018 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/29/2018 16:14

Target Compounds

| Peaks-N3IP Peak Name % Recovery Criteria % I Result Amount Units Qualifier 7 2 Fluoropipen (Surr.) 48.3 3 15.80 ug/L Page (Company) (Surr.) 8 Nitrobenzene-d5 (Surr.) 8 Nitrobenzene-d5 (Surr.) 8 Nitrobenzene-d5 (Surr.) 8 Nitrobenzene-d1 (Surr.) 10 24-6-fribromophonol (Surr.) 10 29 (Surr.) 10 24-6-fribromophonol (Surr.) 10 29 (Surr.) 10 24-6-fribromophonol (Surr.) 10 20 (Surr.) 10 20 (Surr.) 12 (Surr.) <t< th=""><th></th><th></th><th>Acceptance Reported</th><th></th><th></th></t<> | | | Acceptance Reported | | |
|--|-----------------------------|------------|---------------------|--------------|--|
| 8 Nitrobenzene-d5 (Surr.) 80.4 50-150 ug/L 9 2-Fiuorobiphenyl (Surr.) 82.4 50-150 ug/L 10 24-6-Fritromophenol (Su 70.7 50-150 ug/L 11 Terphenyl-d14 (Surr.) 102.9 50-150 ug/L 12 Methyl Methanesulfonate < 0.2 ug/L 13 Ethyl methanesulfonate < 0.2 ug/L 14 Phenol < 0.2 ug/L 15 Aniline < 0.2 ug/L 15 Aniline < 0.2 ug/L 16 Isi(2-chloroethyl) ether < 0.2 ug/L 17 2-Chlorophenol < 0.2 ug/L 18 1,3-Dichlorobenzene < 0.2 ug/L 19 1,4-Dichlorobenzene < 0.2 ug/L 19 1,4-Dichlorobenzene < 0.2 ug/L 12 1,2-Dichlorobenzene < 0.2 ug/L 12 1,2-Dichlorobenzene < 0.2 ug/L 12 2,4-Ethylphenol < 0.2 ug/L 24 Actophenone < 0.2 ug/L 25 N-Nitroso-di-ny-propylami < 0.2 ug/L 26 Haxachloroethane < 0.2 ug/L 27 Nitrobenzene < 0.2 ug/L 28 N-Nitrosopiperidine < 0.2 ug/L 29 Isophorone < 0.2 ug/L 29 Isophorone < 0.2 ug/L 30 2-Nitrophenol < 0.2 ug/L 31 2,4-Dimethylphenol < 0.2 ug/L 32 4-Dichlorobenzene < 0.2 ug/L 33 24-Dichlorobenzene < 0.2 ug/L 34 1,2-4-Trichlorobenzene < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hazachlorobutadiene < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hazachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 30 4-Dichlorophenol < 0.2 ug/L 31 2,4-Dichlorobenzene < 0.2 ug/L 32 4-Dichlorophenol < 0.2 ug/L 34 1,2-4-Trichlorobenzene < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hazachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 30 2-Dichlorophenol < 0.2 ug/L 31 2-4-Dichlorophenol < 0.2 ug/L 32 4-Dichlorophenol < 0.2 ug/L 34 1-2-4-Trichlorobenzene < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hazachlorobutadiene < 0.2 ug/L 39 1-2-4-Trichlorobenzene < 0.2 ug/L 39 1-2-4-Trichlorobenzene < 0.2 ug/L 40 4-Chroro-3- | Peaks: 91(" Peak Name | % Recovery | Criteria % I Result | Amount Units | Qualifier |
| 9 2-Fluorobiphenyl (Surr.) 10 2-4-6-Tribromophenol (Su 70.7 50-150 11 Terphenyl-d14 (Surr.) 12 Methyl Methanesulfonate 13 Ethyl methanesulfonate 13 Ethyl methanesulfonate 14 Phenol 15 Anlline 16 Bis[2-chloroethyl) ether 16 Bis[2-chloroethyl) ether 17 2-Chlorophenol 18 13-3-Chlorophenol 18 13-3-Chlorophenol 19 1,4-Dichlorobenzene 19 1,4-Dichlorobenzene 19 1,4-Dichlorobenzene 10 Senzyl Alcohol 22 4-Methylphenol 23 4-Methylphenol 23 4-Methylphenol 24 Nethylphenol 25 N-Nitroso-di-n-propylami 26 Hexachloroethane 27 Nitrobenzene 28 N-Nitrosopiperidine 28 N-Nitrosopiperidine 29 Sophorone 30 2-Nitrophenol 30 2-Nitrophenol 30 2-Nitrophenol 31 2,4-Dimethylphenol 32 Sis[2-chloroethoxyl meth 33 2-4-Dimethylphenol 34 1-2-4-Trichlorobenzene 40 C.0.2 ug/L 38 1-2-4-Trichlorobenzene 40 C.0.2 ug/L 41 2-Methylphenol 41 2-Methylphenol 42 Lestimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low 43 Bis[2-chloroethoxyl meth 44 1-2-4-5-Tertachlorobenzene 45 Hexachlorobutadiene 40 C-Chlorophenol 40 C-Chlorophenol 41 1-2-4-5-Tertachlorobenzene 42 Hexachlorobutadiene 43 Hexachlorobutadiene 44 Hexachlorobutadiene 45 Hexachlorobutadiene 46 Hexachlorobutadiene 47 Lestimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low 47 Lestimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low 48 Hexachlorobutadiene 49 C.0.2 ug/L 41 2-4-5-Tertachlorobenzene 40 C-Chlorophenol 40 C-Chlorophenol 41 1-2-4-5-Tertachlorobenzene 41 Hexachlorobutadiene 42 C.0.2 ug/L 43 Hexachlorobutadiene 43 Hexachlorobutadiene 44 Hexachlorobutadiene 45 Hexachlorobutadiene 46 Hexachlorobutadiene 47 Lestimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low 47 Lestimated result due to failure (l | 7 2-Fluorophenol (Surr.) | 44.3 | 15-80 | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 8 Nitrobenzene-d5 (Surr.) | 80.4 | 50-150 | ug/L | |
| 11 Terphenyl-d14 (Surr.) 102.9 \$0-150 ug/L 12 Methyl Methanesulfonate < 0.2 ug/L 14 Phenol < 0.2 ug/L 15 Aniline < 0.2 ug/L 15 Aniline < 0.2 ug/L 17 2-Chlorophenol < 0.2 ug/L 18 1,3-Dichlorobenzene < 0.2 ug/L 19 1,4-Dichlorobenzene < 0.2 ug/L 10 1,2-Dichlorobenzene < 0.2 ug/L 10 1,2-Dichlorobenzene < 0.2 ug/L 12 1,2-Dichlorobenzene < 0.2 ug/L 12 1,2-Dichlorobenzene < 0.2 ug/L 13 1,2-Dichlorobenzene < 0.2 ug/L 14 2 Acetophenone < 0.2 ug/L 15 1,2-Dichlorobenzene < 0.2 ug/L 16 1,2-Dichlorobenzene < 0.2 ug/L 17 2 5 N-Introso-di-n-propylami < 0.2 ug/L 18 1,3-Dichlorobenzene < 0.2 ug/L 19 1,4-Dichlorobenzene < | 9 2-Fluorobiphenyl (Surr.) | 82.4 | 50-150 | ug/L | |
| 12 Methyl Methanesulfonate | 10 2-4-6-Tribromophenol (Su | 70.7 | 50-150 | ug/L | |
| 13 Ethyl methanesulfonate | 11 Terphenyl-d14 (Surr.) | 102.9 | 50-150 | ug/L | |
| 14 Phenol | 12 Methyl Methanesulfonate | | < 0.2 | ug/L | |
| 15 Aniline | 13 Ethyl methanesulfonate | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | 14 Phenol | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | 15 Aniline | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 18 1,3-Dichlorobenzene | 16 Bis(2-chloroethyl) ether | | < 0.2 | ug/L | |
| 19 1,4-Dichlorobenzene | 17 2-Chlorophenol | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | 18 1,3-Dichlorobenzene | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | 19 1,4-Dichlorobenzene | | < 0.2 | ug/L | |
| 22 2-Methylphenol | 20 Benzyl Alcohol | | < 0.2 | ug/L | |
| 23 4-Methylphenol | 21 1,2-Dichlorobenzene | | < 0.2 | ug/L | |
| 24 Acetophenone < 0.2 | 22 2-Methylphenol | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | 23 4-Methylphenol | | < 0.2 | ug/L | |
| 26 Hexachloroethane < 0.2 ug/L 27 Nitrobenzene < 0.2 ug/L 28 N-Nitrosopiperidine < 0.2 ug/L 29 Isophorone < 0.2 ug/L 30 2-Nitrophenol < 0.4 ug/L 31 2,4-Dimethylphenol < 0.2 ug/L 32 Bis(2-chloroethoxy) meth < 0.2 ug/L 33 2-4-Dichlorophenol < 0.2 ug/L 34 1-2-4-Trichlorobenzene < 0.2 ug/L 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 24 Acetophenone | | < 0.2 | ug/L | |
| 27 Nitrobenzene < 0.2 ug/L 28 N-Nitrosopiperidine < 0.2 ug/L 29 Isophorone < 0.2 ug/L 30 2-Nitrophenol < 0.4 ug/L 31 2,4-Dimethylphenol < 0.2 ug/L 33 2-4-Dichlorophenol < 0.2 ug/L 34 1-2-4-Trichlorobenzene < 0.2 ug/L 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 25 N-Nitroso-di-n-propylami | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine 29 Isophorone 30 2-Nitrophenol 30 2-Nitrophenol 31 2,4-Dimethylphenol 32 Bis(2-chloroethoxy) meth 33 2-4-Dichlorophenol 34 1-2-4-Trichlorobenzene 35 Naphthalene 40.2 ug/L 36 4-Chloroaniline 40 4-Chlorobutadiene 40 2-Dichlorobutadiene 40 4-Chloro-3-methylphenol 41 2-Methylnaphthalene 40 2-U ug/L 42 1-2-4-5-Tetrachlorobenze 40 4-Chloroospenatien 40 4-Chloro-3-methylphenol 41 2-Methylnaphthalene 40 2-U ug/L 42 1-2-4-5-Tetrachlorobenze 40 3-Dichlorophenol 41 2-Methylnaphthalene 40 2-U ug/L 42 1-2-4-5-Tetrachlorobenze 43 Hexachlorocyclopentadien 44 1-2-4-5-Tetrachlorobenze 45 Hexachlorocyclopentadien 46 4-Chloro-3-methylphenol 47 1-2-4-5-Tetrachlorobenze 48 Hexachlorocyclopentadien 49 1-2-4-5-Tetrachlorobenze 40 1-2-4-5-Tetrachlorobenze 40 2-2-4-5-Tetrachlorobenze 40 3-2-4-5-Tetrachlorobenze 40 4-Chlorocyclopentadien 40 4-Chlorocyclopentadien 40 4-Chlorocyclopentadien 40 4-Chlorocyclopentadien 40 4-Chlorocyclopentadien 40 4-Chlorocyclopentadien 41 2-Methylnaphthalene 40 2-U ug/L 42 1-2-4-5-Tetrachlorobenze 43 Hexachlorocyclopentadien 44 1-2-Methylnaphthalene 40 2-U ug/L 45 1-2-4-5-Tetrachlorobenze 46 1-2-4-5-Tetrachlorobenze 47 1-2-4-5-Tetrachlorobenze 48 Hexachlorocyclopentadien 49 1-2-4-5-Tetrachlorobenze 40 1-2-4-5-Tetrachlorobenze 40 1-2-4-5-Tetrachlorobenze 41 1-2-4-5-Tetrachlorobenze | 26 Hexachloroethane | | < 0.2 | ug/L | |
| 29 Isophorone | 27 Nitrobenzene | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | 28 N-Nitrosopiperidine | | < 0.2 | ug/L | |
| 31 2,4-Dimethylphenol 32 Bis(2-chloroethoxy) meth 33 2-4-Dichlorophenol 34 1-2-4-Trichlorobenzene 35 Naphthalene 36 4-Chloroaniline 37 2-6-Dichlorophenol 38 Hexachlorobutadiene 39 N-Nitrosodibutylamine 40 4-Chloro-3-methylphenol 40 4-Chloro-3-methylphenol 41 2-Methylnaphthalene 40 2 ug/L 43 Hexachlorobcyclopentadien 40 Hexachlorocyclopentadien | 29 Isophorone | | < 0.2 | ug/L | |
| 32 Bis(2-chloroethoxy) meth < 0.2 ug/L 33 2-4-Dichlorophenol < 0.2 ug/L 34 1-2-4-Trichlorobenzene < 0.2 ug/L 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L 44 Hexachlorocyclopentadien < 0.2 ug/L | 30 2-Nitrophenol | | < 0.4 | ug/L | |
| 33 2-4-Dichlorophenol < 0.2 ug/L 34 1-2-4-Trichlorobenzene < 0.2 ug/L 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 31 2,4-Dimethylphenol | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 34 1-2-4-Trichlorobenzene < 0.2 ug/L 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 32 Bis(2-chloroethoxy) meth | | < 0.2 | ug/L | |
| 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 33 2-4-Dichlorophenol | | < 0.2 | ug/L | |
| 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 34 1-2-4-Trichlorobenzene | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 35 Naphthalene | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 36 4-Chloroaniline | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 37 2-6-Dichlorophenol | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 38 Hexachlorobutadiene | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| 40 4-Chloro-3-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 39 N-Nitrosodibutylamine | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L | 40 4-Chloro-3-methylphenol | | < 0.2 | | |
| 43 Hexachlorocyclopentadien < 0.2 ug/L | 41 2-Methylnaphthalene | | < 0.2 | | |
| | 42 1-2-4-5-Tetrachlorobenze | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol < 0.2 ug/L | 43 Hexachlorocyclopentadien | | < 0.2 | ug/L | |
| | 44 2,4,6-Trichlorophenol | | < 0.2 | ug/L | |

Extracted by EH, JR

| 45 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|-----------------------------|-------|---------|
| 46 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 2-Nitroaniline | < 0.2 | ug/L |
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | 0.3 | 21 ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| .5 /1 / | | 0. |

Sample ID: 2018-1789 Operator: Ed Harris

2018-1789 Extracted Neeley
Ed Harris Extracted Date 04-30-2018

Instrument ID: MS Instrument #1

Extracted by EH, JR

Last Calibration: 5/24/2018 11:27

Acquisition Date: 5/29/2018 16:43

| Peaks: 91("#" | Peak Name | % Recovery | Acceptance Criteria % Rec. | Reported Result | Amount Units | Qualifier |
|---------------|-----------------------------|------------------|-------------------------------|--------------------|--------------|--|
| reaks. 91(# | 7 2-Fluorophenol (Surr.) | 76 Recovery 46.0 | | Result | ug/L | Qualifier |
| | 8 Nitrobenzene-d5 (Surr.) | 75.4 | | | ug/L | |
| | 9 2-Fluorobiphenyl (Surr.) | 75.3 75.3 | | | ug/L | |
| | 10 2-4-6-Tribromophenol (Su | 66.0 | | | ug/L | |
| | 11 Terphenyl-d14 (Surr.) | 108. | | | ug/L | |
| | 12 Methyl Methanesulfonate | 100. | 30 130 | < 0.2 | ug/L | |
| | 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| | 14 Phenol | | | < 0.2 | ug/L | |
| | 15 Aniline | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | E Estimated result and to familiar (10W) in the Less and/or Less dup, result finit be blased for |
| | 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| | 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| | 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| | 22 2-Methylphenol | | | < 0.2 | ug/L | |
| | 23 4-Methylphenol | | | < 0.2 | ug/L | |
| | 24 Acetophenone | | | < 0.2 | ug/L | |
| | 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| | 26 Hexachloroethane | | | < 0.2 | ug/L | |
| | 27 Nitrobenzene | | | < 0.2 | ug/L | |
| | 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| | 29 Isophorone | | | < 0.2 | ug/L | |
| | 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| | 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| | 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| | 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| | 35 Naphthalene | | | < 0.2 | ug/L | |
| | 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| | 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| | 38 Hexachlorobutadiene | | | < 0.2 | ug/L | L= Estimated result due to failure (low) in the LCS and/or LCS dup; result MAY be biased low |
| | 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| | 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| | 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| | 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| | 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| | 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| | 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| | 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| | 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| | 48 2-Nitroaniline | | | < 0.2 | ug/L | |

| 49 Dimethyl-phthalate | < 0.2 | ug/L |
|-----------------------------|-------|-----------|
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | C |).22 ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

Sample ID: Ext Blank Operator: Ed Harris

Instrument MS Instrument #1 Last Calibra 5/24/2018 11:27 5/29/2018 10:19 Acquisition

Target Compounds

| | | Acceptance | Reported | |
|----------------------------|------------|-----------------|----------|-------------|
| Peaks: 91(" Peak Name | % Recovery | Criteria % Rec. | Result | Amount Unit |
| 7 2-Fluorophenol (Surr.) | 50.7 | 15-80 | | ug/L |
| 8 Nitrobenzene-d5 (Surr | . 96.9 | 50-150 | | ug/L |
| 9 2-Fluorobiphenyl (Surr | . 95.6 | 50-150 | | ug/L |
| 10 2-4-6-Tribromophenol | 63.4 | 50-150 | | ug/L |
| 11 Terphenyl-d14 (Surr.) | 135.1 | 50-150 | | ug/L |
| 12 Methyl Methanesulfor | nate | | < 0.2 | ug/L |
| 13 Ethyl methanesulfonat | e | | < 0.2 | ug/L |
| 14 Phenol | | | < 0.2 | ug/L |
| 15 Aniline | | | < 0.2 | ug/L |
| 16 Bis(2-chloroethyl) ethe | er | | < 0.2 | ug/L |
| 17 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 2-Methylphenol | | | < 0.2 | ug/L |
| 23 4-Methylphenol | | | < 0.2 | ug/L |
| 24 Acetophenone | | | < 0.2 | ug/L |
| 25 N-Nitroso-di-n-propyla | mi | | < 0.2 | ug/L |
| 26 Hexachloroethane | | | < 0.2 | ug/L |
| 27 Nitrobenzene | | | < 0.2 | ug/L |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 Isophorone | | | < 0.2 | ug/L |
| 30 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 Bis(2-chloroethoxy) me | eth | | < 0.2 | ug/L |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 1-2-4-Trichlorobenzen | e | | < 0.2 | ug/L |
| 35 Naphthalene | | | < 0.2 | ug/L |
| 36 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L |
| 39 N-Nitrosodibutylamine | . | | < 0.2 | ug/L |
| 40 4-Chloro-3-methylphei | | | < 0.2 | ug/L |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 1-2-4-5-Tetrachlorobe | nze | | < 0.2 | ug/L |
| 43 Hexachlorocyclopenta | | | < 0.2 | ug/L |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L |
| ' ' | | | | • |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L |

Extracted Method Blank

Extracted Date 04-30-2018 Extracted by EH, JR

| 47 1-Chloronaphthalene | < 0.2 | ug/L | |
|-----------------------------|-------|------|--|
| 48 2-Nitroaniline | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | < 0.2 | ug/L | |
| 50 Acenaphthylene | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L | |
| 52 3-Nitroaniline | < 0.2 | ug/L | |
| 53 Acenaphthene | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L | |
| 55 Dibenzofuran | < 0.2 | ug/L | |
| 56 4-Nitrophenol | < 1.0 | ug/L | |
| 57 Pentachlorobenzene | < 0.2 | ug/L | |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L | |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L | |
| 60 Fluorene | < 0.2 | ug/L | |
| 61 Diethylphthalate | < 0.2 | ug/L | |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L | |
| 63 4-Nitroaniline | < 0.2 | ug/L | |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L | |
| 65 Diphenylamine | < 0.2 | ug/L | |
| 66 Azobenzene | < 0.2 | ug/L | |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L | |
| 68 Hexachlorobenzene | < 0.2 | ug/L | |
| 69 Pentachlorophenol | < 1.0 | ug/L | |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L | |
| 71 Pronamide | < 0.2 | ug/L | |
| 72 Phenanthrene | < 0.2 | ug/L | |
| 73 Anthracene | < 0.2 | ug/L | |
| 74 Carbazole | < 0.2 | ug/L | |
| 75 Di-n-butylphthalate | 0.77 | ug/L | B= Target analyte present in the Method Blank; All positive results for this compound will be qualified by "B" |
| 76 Fluoranthene | < 0.2 | ug/L | |
| 77 Pyrene | < 0.2 | ug/L | |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L | |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L | |
| 80 Benz[a]anthracene | < 0.2 | ug/L | |
| 81 Chrysene | < 0.2 | ug/L | |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L | |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L | |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L | |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L | |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L | |
| 87 Benzo(a)pyrene | < 0.2 | ug/L | |
| 88 3-Methylcholanthrene | < 0.2 | ug/L | |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L | |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L | |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L | |
| | | | |

Sample ID: LCS-1 4-30-18

Operator: Ed Harris

Instrument MS Instrument #1
Last Calibra 5/24/2018 11:27
Acquisition 5/29/2018 10:49

Extracted LCS-1

Extracted Date 04-30-2018 Extracted by EH, JR

Qualifier

Target Compounds

| Target Con | npounds | | | Acc. Criteri |
|-------------|--------------------------|----------|-----------------|--------------|
| Peaks: 91(" | Peak Name | Amount U | nits % Recovery | % Rec. |
| 7 | 2-Fluorophenol (Surr.) | ug/L | 57.8 | 15-80 |
| 8 | Nitrobenzene-d5 (Surr.) | ug/L | 98.7 | 50-150 |
| 9 | 2-Fluorobiphenyl (Surr.) | ug/L | 91.7 | 50-150 |
| 10 | 2-4-6-Tribromophenol (Su | ug/L | 90.5 | 50-150 |
| 11 | Terphenyl-d14 (Surr.) | ug/L | 110.8 | 50-150 |
| 12 | Methyl Methanesulfonate | ug/L | 98.9 | 50-150 |
| 13 | Ethyl methanesulfonate | ug/L | 120.2 | 50-150 |
| 14 | Phenol | ug/L | 60.2 | 30-120 |
| 15 | Aniline | ug/L | 69.7 | 50-150 |
| 16 | Bis(2-chloroethyl) ether | ug/L | 118.3 | 50-150 |
| | 2-Chlorophenol | ug/L | 106.6 | 30-120 |
| 18 | 1,3-Dichlorobenzene | ug/L | 69.0 | 50-150 |
| 19 | 1,4-Dichlorobenzene | ug/L | 76.2 | 50-150 |
| 20 | Benzyl Alcohol | ug/L | 112.6 | 50-150 |
| 21 | 1,2-Dichlorobenzene | ug/L | 81.2 | 50-150 |
| 22 | 2-Methylphenol | ug/L | 94.2 | 30-120 |
| | 4-Methylphenol | ug/L | 86.9 | 30-120 |
| | Acetophenone | ug/L | 117.0 | 50-150 |
| | N-Nitroso-di-n-propylami | ug/L | 119.5 | 50-150 |
| | Hexachloroethane | ug/L | 57.1 | 50-150 |
| | Nitrobenzene | ug/L | 114.2 | 50-150 |
| 28 | N-Nitrosopiperidine | ug/L | 141.6 | 50-150 |
| | Isophorone | ug/L | 123.3 | 50-150 |
| | 2-Nitrophenol | ug/L | 109.7 | 30-120 |
| | 2,4-Dimethylphenol | ug/L | 27.4 | 30-120 |
| | Bis(2-chloroethoxy) meth | ug/L | 112.7 | 50-150 |
| | 2-4-Dichlorophenol | ug/L | 108.7 | 30-120 |
| | 1-2-4-Trichlorobenzene | ug/L | 83.9 | 50-150 |
| 35 | Naphthalene | ug/L | 101.7 | 50-150 |
| | 4-Chloroaniline | ug/L | 94.8 | 50-150 |
| 37 | 2-6-Dichlorophenol | ug/L | 106.9 | 30-120 |
| | Hexachlorobutadiene | ug/L | 55.8 | 50-150 |
| 39 | N-Nitrosodibutylamine | ug/L | 121.5 | 50-150 |
| | 4-Chloro-3-methylphenol | ug/L | 105.2 | 30-120 |
| 41 | 2-Methylnaphthalene | ug/L | 103.1 | 50-150 |
| | 1-2-4-5-Tetrachlorobenze | ug/L | 90.9 | 50-150 |
| | Hexachlorocyclopentadien | ug/L | 75.0 | 50-150 |
| | 2,4,6-Trichlorophenol | ug/L | 105.6 | 30-120 |
| | 2,4,5-Trichlorophenol | ug/L | 109.8 | 30-120 |
| | 2-Chloronaphthalene | ug/L | 115.3 | 50-150 |
| | 1-Chloronaphthalene | ug/L | 118.3 | 50-150 |
| | 2-Nitroaniline | ug/L | 120.3 | 50-150 |
| 49 | Dimethyl-phthalate | ug/L | 126.7 | 50-150 |
| | Acenaphthylene | ug/L | 113.4 | 50-150 |
| | 2-6-Dinitrotoluene | ug/L | 116.9 | 50-150 |
| | 3-Nitroaniline | ug/L | 110.9 | 50-150 |
| 53 | Acenaphthene | ug/L | 115.5 | 50-150 |
| | 2-4-Dinitrophenol | ug/L | 96.8 | 30-120 |
| | Dibenzofuran | ug/L | 112.0 | 50-150 |
| | 4-Nitrophenol | ug/L | 45.3 | 30-120 |
| | Pentachlorobenzene | ug/L | 96.4 | 50-150 |
| | 2-4-Dinitrotoluene | ug/L | 124.6 | 50-150 |
| 50 | | 0/ - | | |

L= recovery does not meet lab acceptance criteria for LCS and/or LCS dup; this analyte will be qualified as "estimated" in all samples in this QC batch

| 59 2-3-4-6-Tetrachloropheno | ug/L | 110.9 | 30-120 |
|-----------------------------|------|-------|--------|
| 60 Fluorene | ug/L | 121.2 | 50-150 |
| 61 Diethylphthalate | ug/L | 125.4 | 50-150 |
| 62 4-Chlorophenyl-phenyl et | ug/L | 113.6 | 50-150 |
| 63 4-Nitroaniline | ug/L | 99.5 | 50-150 |
| 64 4-6-Dintro-2-methylpheno | ug/L | 108.7 | 30-120 |
| 65 Diphenylamine | ug/L | 115.3 | 50-150 |
| 66 Azobenzene | ug/L | 111.7 | 50-150 |
| 67 4-Bromophenyl-phenyl eth | ug/L | 104.6 | 50-150 |
| 68 Hexachlorobenzene | ug/L | 105.2 | 50-150 |
| 69 Pentachlorophenol | ug/L | 101.4 | 30-120 |
| 70 Pentachloronitrobenzene | ug/L | 105.3 | 50-150 |
| 71 Pronamide | ug/L | 115.9 | 50-150 |
| 72 Phenanthrene | ug/L | 113.1 | 50-150 |
| 73 Anthracene | ug/L | 110.8 | 50-150 |
| 74 Carbazole | ug/L | 113.7 | 50-150 |
| 75 Di-n-butylphthalate | ug/L | 166.9 | 50-150 |
| 76 Fluoranthene | ug/L | 112.2 | 50-150 |
| 77 Pyrene | ug/L | 128.3 | 50-150 |
| 78 Dimethylaminoazobenzene | ug/L | 125.2 | 50-150 |
| 79 Butylbenzyl phthalate | ug/L | 131.6 | 50-150 |
| 80 Benz[a]anthracene | ug/L | 126.3 | 50-150 |
| 81 Chrysene | ug/L | 124.4 | 50-150 |
| 82 Bis(2-ethylhexyl) phthal | ug/L | 128.6 | 50-150 |
| 83 Di-n-octyl phthalate | ug/L | 108.4 | 50-150 |
| 84 Benzo[b]fluoranthene | ug/L | 103.1 | 50-150 |
| 85 Dimethylbenzo(a)anthrace | ug/L | 100.3 | 50-150 |
| 86 Benzo(k)fluoranthene | ug/L | 107.5 | 50-150 |
| 87 Benzo(a)pyrene | ug/L | 94.1 | 50-150 |
| 88 3-Methylcholanthrene | ug/L | 78.4 | 50-150 |
| 89 Indeno[1-2-3-cd]pyrene | ug/L | 86.4 | 50-150 |
| 90 Dibenz(a-h)anthracene | ug/L | 85.7 | 50-150 |
| 91 Benzo(ghi)perylene | ug/L | 92.1 | 50-150 |
| | | | |

Sample Report (Standard)

Extracted LCS-2

Extracted by EH, JR

Extracted Date 04-30-2018

Sample ID: LCS-2 4-30-18 Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/29/2018 11:18

| Peaks: 91("Peak Name % Recovery RPD (%) % Rec. RPD 7 2-Fluorophenol (Surr.) 47.2 15-80 | |
|--|--|
| · · · · · · · · · · · · · · · · · · · | |
| . = | |
| 8 Nitrobenzene-d5 (Surr.) 78.8 50-150 | |
| 9 2-Fluorobiphenyl (Surr.) 68.2 50-150 | |
| 10 2-4-6-Tribromophenol (Su 78.7 50-150 | |
| 11 Terphenyl-d14 (Surr.) 104.8 50-150 | |
| | does not meet lab acceptance criteria |
| 13 Ethyl methanesulfonate 99.2 19.2 50-150 0-20 | |
| , | does not meet lab acceptance criteria |
| | res not meet lab acceptance criteria; This analyte will be qualified as "estimated" in all samples in this QC batch; R = RPD does not meet lab acceptance criteri |
| 16 Bis(2-chloroethyl) ether 97.4 19.4 50-150 0-20 | es not meet ab deceptance circuis, into dialityte min be quanted as estimated in an samples in this quanta, in – in a does not meet ab deceptance circuis |
| | does not meet lab acceptance criteria |
| 18 1.3-Dichlorobenzene 57.5 18.1 50-150 0-20 | noes not meet als deceptance streets |
| · | does not meet lab acceptance criteria |
| · | does not meet lab acceptance criteria |
| 21 1,2-Dichlorobenzene 67.4 18.5 50-150 0-20 | does not meet tab acceptance circena |
| · | does not meet lab acceptance criteria |
| | does not meet lab acceptance criteria |
| · · | does not meet lab acceptance criteria |
| | does not meet lab acceptance criteria |
| 26 Hexachloroethane 47.0 19.3 50-150 0-20 | does not meet lab acceptance criteria |
| | does not meet lab acceptance criteria |
| · · · · · · · · · · · · · · · · · · · | does not meet lab acceptance criteria |
| · · · · · · · · · · · · · · · · · · · | does not meet lab acceptance criteria |
| | does not meet lab acceptance criteria |
| | ides not meet lab acceptance criteria ies not meet lab acceptance criteria; This analyte will be qualified as "estimated" in all samples in this QC batch; R = RPD does not meet lab acceptance criteria |
| | es not meet lab acceptance criteria; inis analyte will be qualified as "estimated" in all samples in this QC datch; K = KPD does not meet lab acceptance criteria does not meet lab acceptance criteria |
| | does not meet lab acceptance criteria |
| · · · · · · · · · · · · · · · · · · · | does not meet lab acceptance criteria |
| · · · · · · · · · · · · · · · · · · · | does not meet lab acceptance criteria |
| | does not meet lab acceptance criteria |
| 37 2-6-Dichlorophenol 91.7 15.3 30-120 0-20 K = KPD of ECS/ECS dup. C | ides not meet lab acceptance criteria |
| · | |
| | es not meet lab acceptance criteria; This analyte will be qualified as "estimated" in all samples in this QC batch; R = RPD does not meet lab acceptance criteri |
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| | does not meet lab acceptance criteria |
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| | does not meet lab acceptance criteria |
| · · · | does not meet lab acceptance criteria |
| 51 2-6-Dinitrotoluene 95.9 19.8 50-150 0-20 | |
| 52 3-Nitroaniline 92.2 18.4 50-150 0-20 | |
| · · · · · · · · · · · · · · · · · · · | does not meet lab acceptance criteria |
| 54 2-4-Dinitrophenol 81.1 17.7 30-120 0-20 | |
| | does not meet lab acceptance criteria |
| 56 4-Nitrophenol 42.0 7.8 30-120 0-20 | |
| | does not meet lab acceptance criteria |
| | does not meet lab acceptance criteria |
| 59 2-3-4-6-Tetrachloropheno 84.7 26.8 30-120 0-20 R = RPD of LCS/LCS dup. 0 | does not meet lab acceptance criteria |

| 60 Fluorene | 87.7 | 32.1 | 50-150 | 0-20 |
|-----------------------------|-------|------|--------|------|
| 61 Diethylphthalate | 97.9 | 24.6 | 50-150 | 0-20 |
| 62 4-Chlorophenyl-phenyl et | 85.3 | 28.5 | 50-150 | 0-20 |
| 63 4-Nitroaniline | 91.5 | 8.4 | 50-150 | 0-20 |
| 64 4-6-Dintro-2-methylpheno | 96.6 | 11.8 | 30-120 | 0-20 |
| 65 Diphenylamine | 95.1 | 19.3 | 50-150 | 0-20 |
| 66 Azobenzene | 92.0 | 19.3 | 50-150 | 0-20 |
| 67 4-Bromophenyl-phenyl eth | 92.6 | 12.2 | 50-150 | 0-20 |
| 68 Hexachlorobenzene | 87.1 | 18.8 | 50-150 | 0-20 |
| 69 Pentachlorophenol | 89.4 | 12.5 | 30-120 | 0-20 |
| 70 Pentachloronitrobenzene | 92.7 | 12.7 | 50-150 | 0-20 |
| 71 Pronamide | 107.1 | 7.9 | 50-150 | 0-20 |
| 72 Phenanthrene | 99.7 | 12.5 | 50-150 | 0-20 |
| 73 Anthracene | 93.7 | 16.7 | 50-150 | 0-20 |
| 74 Carbazole | 105.3 | 7.7 | 50-150 | 0-20 |
| 75 Di-n-butylphthalate | 151.1 | 9.9 | 50-150 | 0-20 |
| 76 Fluoranthene | 98.7 | 12.8 | 50-150 | 0-20 |
| 77 Pyrene | 112.8 | 12.9 | 50-150 | 0-20 |
| 78 Dimethylaminoazobenzene | 121.2 | 3.3 | 50-150 | 0-20 |
| 79 Butylbenzyl phthalate | 129.3 | 1.8 | 50-150 | 0-20 |
| 80 Benz[a]anthracene | 126.2 | 0.0 | 50-150 | 0-20 |
| 81 Chrysene | 121.0 | 2.8 | 50-150 | 0-20 |
| 82 Bis(2-ethylhexyl) phthal | 133.2 | 3.5 | 50-150 | 0-20 |
| 83 Di-n-octyl phthalate | 113.1 | 4.2 | 50-150 | 0-20 |
| 84 Benzo[b]fluoranthene | 104.8 | 1.6 | 50-150 | 0-20 |
| 85 Dimethylbenzo(a)anthrace | 97.0 | 3.3 | 50-150 | 0-20 |
| 86 Benzo(k)fluoranthene | 106.2 | 1.3 | 50-150 | 0-20 |
| 87 Benzo(a)pyrene | 93.0 | 1.2 | 50-150 | 0-20 |
| 88 3-Methylcholanthrene | 70.9 | 10.1 | 50-150 | 0-20 |
| 89 Indeno[1-2-3-cd]pyrene | 87.4 | 1.1 | 50-150 | 0-20 |
| 90 Dibenz(a-h)anthracene | 89.2 | 4.0 | 50-150 | 0-20 |
| 91 Benzo(ghi)perylene | 89.5 | 2.8 | 50-150 | 0-20 |
| | | | | |

 $R = RPD \ of \ LCS/LCS \ dup. \ does \ not \ meet \ lab \ acceptance \ criteria$ $R = RPD \ of \ LCS/LCS \ dup. \ does \ not \ meet \ lab \ acceptance \ criteria$ $R = RPD \ of \ LCS/LCS \ dup. \ does \ not \ meet \ lab \ acceptance \ criteria$

Sample ID: 2018-1790

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 10:37

Target Compounds

| | | Acc. Criteria | Reported | I | |
|-----------------------------|------------|---------------|----------|--------------|--|
| Peaks: 91(' Peak Name | % Recovery | % Rec. | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 35.3 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 48.5 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 53.1 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 49.5 | 50-150 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 82.9 | 50-150 | | ug/L | |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | 0.8 | 6 ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L = Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |

Extracted MW-18S

Extracted by EH, JR

Extracted Date 05-01-2018

| 46 | 2-Chloronaphthalene | < 0.2 | ug/L |
|----|--------------------------|-------|------|
| 47 | 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 | 2-Nitroaniline | < 0.2 | ug/L |
| 49 | Dimethyl-phthalate | < 0.2 | ug/L |
| 50 | Acenaphthylene | < 0.2 | ug/L |
| 51 | 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 | 3-Nitroaniline | < 0.2 | ug/L |
| 53 | Acenaphthene | < 0.2 | ug/L |
| 54 | 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 | Dibenzofuran | < 0.2 | ug/L |
| 56 | 4-Nitrophenol | <1.0 | ug/L |
| 57 | Pentachlorobenzene | < 0.2 | ug/L |
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| | Azobenzene | < 0.2 | ug/L |
| | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| | Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | Benzo(a)pyrene | < 0.2 | ug/L |
| | 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | - |

Sample ID: 2018-1791 Operator: Ed Harris

Instrument MS Instrument #1

Extracted MW-18D Extracted Date 05-01-2018 Extracted by EH, JR

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 11:06

| Target Compounds | | Acc. Criteria | Reported | | |
|-----------------------------|------------|---------------|----------|--------------|--|
| Peaks: 91(" Peak Name | % Recovery | % Rec. | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 26.3 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 54.9 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 53.8 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 32.9 | 50-150 | | ug/L | S= Surrogate failed (low) to recover within acceptance criteria; all analytes associated with this surrogate will be qualified as "estimated |
| 11 Terphenyl-d14 (Surr.) | 81.1 | 50-150 | | ug/L | Analytes associated with this surrogate MAY be biased low |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | | 0.73 ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L = Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| 53 Acenaphthene | | | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 55 Dibenzofuran | | | < 0.2 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 56 4-Nitrophenol | | | <1.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 57 Pentachlorobenzene | | | < 0.2 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 58 2-4-Dinitrotoluene | | | < 0.2 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 59 2-3-4-6-Tetrachloropheno | | | < 0.4 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |

| 60 Fluorene | < 0.2 | ug/L |
|-----------------------------|-------|------|
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low

Sample ID: 2018-1792 50 mL

Operator: Ed Harris

Instrument ID: MS Instrument #1

Last Calibratio 5/24/2018 11:27 Acquisition Da 5/30/2018 11:36 Extracted MW-3D 50mL Extracted Date 05-01-2018 Extracted by EH, JR Sample ID: 2018-1792 5 mL Operator: Ed Harris Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 12:05 Extracted MW-3D 5mL Extracted Date 05-01-2018 Extracted by EH, JR

| | | Acc. Criteria | Reported | | 0 116 | | | | |
|--|------------|---------------|----------------|----------------------------|--|------------------------|------------------------------|-------------------------|--|
| 91("#" Peak Name | % Recovery | % Rec. | Result | Amount Units | Qualifier | T1 C | 4. | | |
| 7 2-Fluorophenol (Surr.) | 36.2 | 15-80 | | ug/L | | Target Compound | ds | December | |
| 8 Nitrobenzene-d5 (Surr.) | 65.6 | 50-150 | | ug/L | | D I - 04/II D I - N | | Reported | |
| 9 2-Fluorobiphenyl (Surr.) | 65.5 | 50-150 | | ug/L | | Peaks: 91(" Peak I | | Result Unit | S |
| 10 2-4-6-Tribromophenol (Su | 67.9 | 50-150 | | ug/L | | 35 Napht | | 141 ug/L | |
| 11 Terphenyl-d14 (Surr.) | 87.6 | 50-150 | | ug/L | | | thylnaphthalene | 136 ug/L | |
| 12 Methyl Methanesulfonate | | | < 2.0 | ug/L | | 53 Acena | | 172 ug/L | Poor Integration not used |
| 13 Ethyl methanesulfonate | | | < 2.0 | ug/L | | 55 Diben | | 108 ug/L | |
| 14 Phenol | | | < 2.0 | ug/L | | 60 <mark>Fluore</mark> | ene | 90.4 ug/L | |
| 15 Aniline | | | < 2.0 | ug/L | | | | | |
| 16 Bis(2-chloroethyl) ether | | | < 2.0 | ug/L | | | | | |
| 17 2-Chlorophenol | | | < 2.0 | ug/L | | C | 4702 4 200 | F. A. | ata d MANA 2D. FOurt assessed and the an Dil 4 |
| 18 1,3-Dichlorobenzene | | | < 2.0 | ug/L | | Sample ID: 2018- | | | icted MW-3D 50mL conc to 1mL then Dil 1 |
| 19 1,4-Dichlorobenzene | | | < 2.0 | ug/L | | Operator: Ed Ha | | | octed Date 05-01-2018 |
| 20 Benzyl Alcohol | | | < 2.0 | ug/L | | Instrument MS Ins | | EXTra | cted by EH, JR |
| 21 1,2-Dichlorobenzene | | | < 2.0 | ug/L | | Last Calibra | 5/24/2018 11:27 | | |
| 22 2-Methylphenol | | | < 2.0 | ug/L | | Acquisition | 5/30/2018 12:35 | | |
| 23 4-Methylphenol | | | < 2.0 | ug/L | | | | | |
| 24 Acetophenone | | | < 2.0 | ug/L | | | | | |
| 25 N-Nitroso-di-n-propylami 26 Hexachloroethane | | | < 2.0 < 2.0 | ug/L | | Target Compound | 15 | Reported | |
| | | | | ug/L | | Deeles 01/" Deels N | | | _ |
| 27 Nitrobenzene | | | < 2.0 | ug/L | | Peaks: 91(" Peak I | | Result Unit | |
| 28 N-Nitrosopiperidine | | | < 2.0 | ug/L | | 53 <mark>Acena</mark> | pntnene | 211 ug/L | |
| 29 Isophorone | | | < 2.0 | ug/L | | | | | |
| 30 2-Nitrophenol | | | < 4.0 < 2.0 | ug/L | I - Analysis failed (las | | | CC and/an I CC down and | ude NAAV be beleed leve |
| 31 2,4-Dimethylphenol | | | < 2.0 | ug/L | L = Analyte falled (10) | w) to recover within | acceptance criteria in the L | cs and/or LCs dup; res | uit MAY be baised low |
| 32 Bis(2-chloroethoxy) meth 33 2-4-Dichlorophenol | | | < 2.0 | ug/L | | | | | |
| • | | | < 2.0 | ug/L | | | | | |
| 34 1-2-4-Trichlorobenzene | | | | ug/L | Over Range; see dilu | tion | | | |
| 35 Naphthalene 36 4-Chloroaniline | | | | 28 ug/L | Over Kange, see unu | u <mark>o</mark> n | | | |
| 37 2-6-Dichlorophenol | | | < 2.0 < 2.0 | ug/L | | | | | |
| 38 Hexachlorobutadiene | | | < 2.0 | ug/L | | | | | |
| 39 N-Nitrosodibutylamine | | | < 2.0 | ug/L | | | | | |
| 40 4-Chloro-3-methylphenol | | | < 2.0 | ug/L ug/L | | | | | |
| 41 2-Methylnaphthalene | | | | ug/L 24 ug/L | Over Range; see dilu | tion | | | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 2.0 | ug/L | Over Kange, see and | u <mark>u</mark> ii | | | |
| 43 Hexachlorocyclopentadien | | | < 2.0 | ug/L ug/L | | | | | |
| 44 2,4,6-Trichlorophenol | | | < 2.0 | ug/L ug/L | | | | | |
| 45 2,4,5-Trichlorophenol | | | < 2.0 | ug/L ug/L | | | | | |
| 46 2-Chloronaphthalene | | | < 2.0 | ug/L ug/L | | | | | |
| 47 1-Chloronaphthalene | | | < 2.0 | ug/L ug/L | | | | | |
| 48 2-Nitroaniline | | | < 2.0 | ug/L ug/L | | | | | |
| 49 Dimethyl-phthalate | | | < 2.0 | ug/L ug/L | | | | | |
| 50 Acenaphthylene | | | | .3 ug/L | | | | | |
| | | | < 0.2 | ug/L | | | | | |
| | | | < 0.2 | ug/L ug/L | | | | | |
| 51 2-6-Dinitrotoluene | | | < U.Z | | | | | | |
| 52 3-Nitroaniline | | | 20 | 16 ug/l | Over Panger con dil. | tion | | | |
| 52 3-Nitroaniline 53 <mark>Acenaphthene</mark> | | | | 06 ug/L | Over Range; see dilu | tion | | | |
| 52 3-Nitroaniline | | | < 20.0 | 06 ug/L ug/L LO ug/L | Over Range; see dilu Over Range; see dilu | _ | | | |

| 57 Pentachlorobenzene | < 2.0 ug/L | |
|-----------------------------|-------------|--------------------------|
| 58 2-4-Dinitrotoluene | < 2.0 ug/L | |
| 59 2-3-4-6-Tetrachloropheno | < 4.0 ug/L | |
| 60 Fluorene | 100 ug/L | Over Range; see dilution |
| 61 Diethylphthalate | < 2.0 ug/L | |
| 62 4-Chlorophenyl-phenyl et | < 2.0 ug/L | |
| 63 4-Nitroaniline | < 2.0 ug/L | |
| 64 4-6-Dintro-2-methylpheno | < 20.0 ug/L | |
| 65 Diphenylamine | < 2.0 ug/L | |
| 66 Azobenzene | < 2.0 ug/L | |
| 67 4-Bromophenyl-phenyl eth | < 2.0 ug/L | |
| 68 Hexachlorobenzene | < 2.0 ug/L | |
| 69 Pentachlorophenol | <10.0 ug/L | |
| 70 Pentachloronitrobenzene | < 2.0 ug/L | |
| 71 Pronamide | < 2.0 ug/L | |
| 72 Phenanthrene | 108 ug/L | Over Range; see dilution |
| 73 Anthracene | 8.75 ug/L | |
| 74 Carbazole | < 2.0 ug/L | |
| 75 Di-n-butylphthalate | 5.06 ug/L | |
| 76 Fluoranthene | 14.7 ug/L | |
| 77 Pyrene | 8.23 ug/L | |
| 78 Dimethylaminoazobenzene | < 2.0 ug/L | |
| 79 Butylbenzyl phthalate | < 2.0 ug/L | |
| 80 Benz[a]anthracene | < 2.0 ug/L | |
| 81 Chrysene | < 2.0 ug/L | |
| 82 Bis(2-ethylhexyl) phthal | < 2.0 ug/L | |
| 83 Di-n-octyl phthalate | 2.05 ug/L | |
| 84 Benzo[b]fluoranthene | < 2.0 ug/L | |
| 85 Dimethylbenzo(a)anthrace | < 2.0 ug/L | |
| 86 Benzo(k)fluoranthene | < 2.0 ug/L | |
| 87 Benzo(a)pyrene | < 2.0 ug/L | |
| 88 3-Methylcholanthrene | < 2.0 ug/L | |
| 89 Indeno[1-2-3-cd]pyrene | < 2.0 ug/L | |
| 90 Dibenz(a-h)anthracene | < 2.0 ug/L | |
| 91 Benzo(ghi)perylene | < 2.0 ug/L | |
| (8) | | |

Sample ID: 2018-1793 50 mL Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 13:04

Target Compounds

Extracted MW-3S 50 mL Extracted Date 05-01-2018 Extracted by EH, JR

| | o/ D | | orted | 0.115 |
|-----------------------------|-------------|---------------|-----------|---|
| Peaks: 91(" Peak Name | % Recovery | Res | ult Units | Qualifier |
| | A | Acc. Criteria | | |
| | | % Rec. | ug/L | |
| 7 2-Fluorophenol (Surr.) | 31.9 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 68.0 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | | 50-150 | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 40.1 | | ug/L | S= Surrogate failed to recover within acceptance limits; all analytes associated with this surrogate will be qualified as "estimated" |
| 11 Terphenyl-d14 (Surr.) | | 50-150 | ug/L | analytes associated with this surrogate MAY be biased low |
| 12 Methyl Methanesulfonate | | <2.0 | O. | |
| 13 Ethyl methanesulfonate | | <2.0 | O, | |
| 14 Phenol | | <2.0 | O, | |
| 15 Aniline | | <2.0 | O. | |
| 16 Bis(2-chloroethyl) ether | | <2.0 | O, | |
| 17 2-Chlorophenol | | <2.0 |) ug/L | |
| 18 1,3-Dichlorobenzene | | <2.0 |) ug/L | |
| 19 1,4-Dichlorobenzene | | <2.0 |) ug/L | |
| 20 Benzyl Alcohol | | <2.0 |) ug/L | |
| 21 1,2-Dichlorobenzene | | <2.0 |) ug/L | |
| 22 2-Methylphenol | | <2.0 |) ug/L | |
| 23 4-Methylphenol | | <2.0 |) ug/L | |
| 24 Acetophenone | | <2.0 |) ug/L | |
| 25 N-Nitroso-di-n-propylami | | <2.0 |) ug/L | |
| 26 Hexachloroethane | | <2.0 |) ug/L | |
| 27 Nitrobenzene | | <2.0 |) ug/L | |
| 28 N-Nitrosopiperidine | | <2.0 | ug/L | |
| 29 Isophorone | | <2.0 | ug/L | |
| 30 2-Nitrophenol | | <4.0 | ug/L | |
| 31 2,4-Dimethylphenol | | <2.0 | ug/L | L = Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | <2.0 | ug/L | |
| 33 2-4-Dichlorophenol | | <2.0 | - | |
| 34 1-2-4-Trichlorobenzene | | <2.0 | - | |
| 35 Naphthalene | | | 4.01 ug/L | |
| 36 4-Chloroaniline | | <2.0 | _ | |
| 37 2-6-Dichlorophenol | | <2.0 | - | |
| 38 Hexachlorobutadiene | | <2.0 | | |
| 39 N-Nitrosodibutylamine | | <2.0 | - | |
| 40 4-Chloro-3-methylphenol | | <2.0 | O, | |
| 41 2-Methylnaphthalene | | <2.0 | O, | |
| 42 1-2-4-5-Tetrachlorobenze | | <2.0 | O. | |
| 43 Hexachlorocyclopentadien | | <2.0 | | |
| 44 2,4,6-Trichlorophenol | | <2.0 | _ | |
| 45 2,4,5-Trichlorophenol | | <2.0 | - | |
| 46 2-Chloronaphthalene | | <2.0 | O, | |
| 47 1-Chloronaphthalene | | <2.0 | - | |
| 48 2-Nitroaniline | | <2.0 | | |
| 40 Z-INILI OdTIIIIIE | | \2. (| , ug/L | |

| 49 Dimethyl-phthalate | <2.0 | ug/L | |
|--|--------------|--------------|--|
| 50 Acenaphthylene | <2.0 | ug/L | |
| 51 2-6-Dinitrotoluene | <2.0 | ug/L | |
| 52 3-Nitroaniline | <2.0 | ug/L | |
| 53 Acenaphthene | 3.5 | 7 ug/L | |
| 54 2-4-Dinitrophenol | < 20.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 55 Dibenzofuran | 2.9 | 5 ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 56 4-Nitrophenol | < 10.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 57 Pentachlorobenzene | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 58 2-4-Dinitrotoluene | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 59 2-3-4-6-Tetrachloropheno | 17. | 4 ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 60 Fluorene | 3.5 | 3 ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 61 Diethylphthalate | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 62 4-Chlorophenyl-phenyl et | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 63 4-Nitroaniline | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 64 4-6-Dintro-2-methylpheno | < 20.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 65 Diphenylamine | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 66 Azobenzene | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 67 4-Bromophenyl-phenyl eth | 4.3 | 7 ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 68 Hexachlorobenzene | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 69 Pentachlorophenol | 55 | 8 ug/L | Over Range See dilution |
| 70 Pentachloronitrobenzene | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 71 Pronamide | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 72 Phenanthrene | 2.4 | 9 ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 73 Anthracene | <2.0 | ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 74 Carbazole | 2.8 | 9 ug/L | E= Estimated result due to surrogate failure; result MAY be biased low |
| 75 Di-n-butylphthalate | 4.0 | 12 ug/L | |
| 76 Fluoranthene | 2.6 | 1 ug/L | |
| 77 Pyrene | <2.0 | ug/L | |
| 78 Dimethylaminoazobenzene | <2.0 | ug/L | |
| 79 Butylbenzyl phthalate | <2.0 | ug/L | |
| 80 Benz[a]anthracene | <2.0 | ug/L | |
| 81 Chrysene | <2.0 | ug/L | |
| 82 Bis(2-ethylhexyl) phthal | 3.5 | 9 ug/L | |
| 83 Di-n-octyl phthalate | <2.0 | ug/L | |
| 84 Benzo[b]fluoranthene | <2.0 | ug/L | |
| 85 Dimethylbenzo(a)anthrace | <2.0 | ug/L | |
| | <2.0 | ug/L | |
| 86 Benzo(k)fluoranthene | <2.0 | | |
| 86 Benzo(k)fluoranthene 87 Benzo(a)pyrene | <2.0 | ug/L | |
| * * | | ug/L ug/L | |
| 87 Benzo(a)pyrene | <2.0 | O, | |
| 87 Benzo(a)pyrene 88 3-Methylcholanthrene | <2.0 <2.0 | ug/L | |

Sample ID: 2018-1793 1-100 Operator: Ed Harris Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 13:34

Target Compounds

Reported

Peaks: 91(" Peak Name Result Units
69 Pentachlorophenol 799 ug/L

Extracted MW-3S 5 mL Extracted Date 05-01-2018

Extracted by EH, JR

2018-1794 Sample ID: Operator: Ed Harris

Instrument ID: MS Instrument #1 Last Calibration 5/24/2018 11:27 Acquisition Date 5/30/2018 14:38

Target Compounds

| | | | | Reported | | |
|---------------|----------------------------|------------|---------------|----------|--------------|--|
| Peaks: 91("#" | Peak Name | % Recovery | | Result | Amount Units | Quallifier |
| | | | Acc. Criteria | | ug/L | |
| | | | % Rec. | | ug/L | |
| | 7 2-Fluorophenol (Surr.) | 53.4 | 15-80 | | ug/L | |
| | 8 Nitrobenzene-d5 (Surr.) | 59.7 | 50-150 | | ug/L | |
| | 9 2-Fluorobiphenyl (Surr.) | 59.7 | 50-150 | | ug/L | |
| 10 | 0 2-4-6-Tribromophenol (Su | 63.9 | 50-150 | | ug/L | |
| 1 | 1 Terphenyl-d14 (Surr.) | 80.5 | 50-150 | | ug/L | |
| 1 | 2 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| | 3 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| | 4 Phenol | | | < 0.2 | ug/L | |
| | 5 Aniline | | | < 0.2 | ug/L | |
| 1 | 6 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 1 | 7 2-Chlorophenol | | | < 0.2 | ug/L | |
| 1 | 8 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| 1 | 9 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 | 0 Benzyl Alcohol | | | | 0.25 ug/L | |
| 2 | 1 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 2: | 2 2-Methylphenol | | | < 0.2 | ug/L | |
| 2: | 3 4-Methylphenol | | | < 0.2 | ug/L | |
| 2 | 4 Acetophenone | | | < 0.2 | ug/L | |
| 2 | 5 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 2 | 6 Hexachloroethane | | | < 0.2 | ug/L | |
| 2 | 7 Nitrobenzene | | | < 0.2 | ug/L | |
| 2 | 8 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 2: | 9 Isophorone | | | < 0.2 | ug/L | |
| 30 | 0 2-Nitrophenol | | | < 0.4 | ug/L | |
| 3: | 1 2,4-Dimethylphenol | | | < 0.2 | ug/L | L = Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup; result MAY be biased low |
| 3: | 2 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 3: | 3 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 | 4 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 3 | 5 Naphthalene | | | < 0.2 | ug/L | |
| 3 | 6 4-Chloroaniline | | | < 0.2 | ug/L | |
| 3 | 7 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 | 8 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 3: | 9 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 4 | 0 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 4: | 1 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 4: | 2 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 4: | 3 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 4 | 4 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 4 | 5 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 4 | 6 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 4 | 7 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 4 | 8 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 | 9 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 | 0 Acenaphthylene | | | < 0.2 | ug/L | |

Extracted MW-8S

Extracted by EH, JR

Extracted Date 05-01-2018

| 51 | 2-6-Dinitrotoluene | < 0.2 | ug/L |
|----|--------------------------|-------|-----------|
| 52 | 3-Nitroaniline | < 0.2 | ug/L |
| 53 | Acenaphthene | < 0.2 | ug/L |
| 54 | 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 | Dibenzofuran | < 0.2 | ug/L |
| 56 | 4-Nitrophenol | | 0.81 ug/L |
| 57 | Pentachlorobenzene | < 0.2 | ug/L |
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 | Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| | Benzo(k)fluoranthene | < 0.2 | ug/L |
| | Benzo(a)pyrene | < 0.2 | ug/L |
| | 3-Methylcholanthrene | < 0.2 | ug/L |
| | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |

Sample ID: 2018-1795

Operator: Ed Harris Instrument MS Instrument #1 Extracted MW-8D Extracted Date 05-01-2018 Extracted by EH, JR

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 15:08

Target Con

| Target Compounds | Δ | cc. Criter | ia Reported | d | |
|-----------------------------|------------|------------|-------------|--------------|--|
| Peaks: 91(" Peak Name | % Recovery | % Rec. | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 37.1 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 53.3 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 52.9 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 51.8 | 50-150 | | ug/L | |
| 11 Terphenyl-d14 (Surr.) | 75.4 | 50-150 | | ug/L | |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | 1.1 | l2 ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L = Analyte failed (low) to recover within accep |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |

eptance criteria in the LCS and/or LCS dup; result MAY be biased low

| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
|-----------------------------|-------|----------|
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | <1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | | 0.2 ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

Sample ID: 2018-1796

Operator: Ed Harris Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 15:37

Target Compounds

| | | Acc. Criteria | Reported | | |
|-----------------------------|------------|---------------|----------|--------------|--|
| Peaks: 91(" Peak Name | % Recovery | % Rec. | Result | Amount Units | Qualifier |
| 7 2-Fluorophenol (Surr.) | 32.2 | 15-80 | | ug/L | |
| 8 Nitrobenzene-d5 (Surr.) | 52.5 | 50-150 | | ug/L | |
| 9 2-Fluorobiphenyl (Surr.) | 56.2 | 50-150 | | ug/L | |
| 10 2-4-6-Tribromophenol (Su | 49.8 | 50-150 | | ug/L | S = Surrogate failed to recover within acceptance criteria; all analytes associated with this surrogate will be qualified as "estimated" |
| 11 Terphenyl-d14 (Surr.) | 77.2 | 50-150 | | ug/L | Analytes associated with this surrogate MAY be biased low |
| 12 Methyl Methanesulfonate | | | < 0.2 | ug/L | |
| 13 Ethyl methanesulfonate | | | < 0.2 | ug/L | |
| 14 Phenol | | | < 0.2 | ug/L | |
| 15 Aniline | | | < 0.2 | ug/L | |
| 16 Bis(2-chloroethyl) ether | | | < 0.2 | ug/L | |
| 17 2-Chlorophenol | | | < 0.2 | ug/L | |
| 18 1,3-Dichlorobenzene | | | < 0.2 | ug/L | |
| 19 1,4-Dichlorobenzene | | | < 0.2 | ug/L | |
| 20 Benzyl Alcohol | | | < 0.2 | ug/L | |
| 21 1,2-Dichlorobenzene | | | < 0.2 | ug/L | |
| 22 2-Methylphenol | | | < 0.2 | ug/L | |
| 23 4-Methylphenol | | | < 0.2 | ug/L | |
| 24 Acetophenone | | | < 0.2 | ug/L | |
| 25 N-Nitroso-di-n-propylami | | | < 0.2 | ug/L | |
| 26 Hexachloroethane | | | < 0.2 | ug/L | |
| 27 Nitrobenzene | | | < 0.2 | ug/L | |
| 28 N-Nitrosopiperidine | | | < 0.2 | ug/L | |
| 29 Isophorone | | | < 0.2 | ug/L | |
| 30 2-Nitrophenol | | | < 0.4 | ug/L | |
| 31 2,4-Dimethylphenol | | | < 0.2 | ug/L | L = Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup; result MAY be biased low |
| 32 Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L | |
| 33 2-4-Dichlorophenol | | | < 0.2 | ug/L | |
| 34 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L | |
| 35 Naphthalene | | | < 0.2 | ug/L | |
| 36 4-Chloroaniline | | | < 0.2 | ug/L | |
| 37 2-6-Dichlorophenol | | | < 0.2 | ug/L | |
| 38 Hexachlorobutadiene | | | < 0.2 | ug/L | |
| 39 N-Nitrosodibutylamine | | | < 0.2 | ug/L | |
| 40 4-Chloro-3-methylphenol | | | < 0.2 | ug/L | |
| 41 2-Methylnaphthalene | | | < 0.2 | ug/L | |
| 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L | |
| 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 44 2,4,6-Trichlorophenol | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol | | | < 0.2 | ug/L | |
| 46 2-Chloronaphthalene | | | < 0.2 | ug/L | |
| 47 1-Chloronaphthalene | | | < 0.2 | ug/L | |
| 48 2-Nitroaniline | | | < 0.2 | ug/L | |
| 49 Dimethyl-phthalate | | | < 0.2 | ug/L | |
| 50 Acenaphthylene | | | < 0.2 | ug/L | |
| 51 2-6-Dinitrotoluene | | | < 0.2 | ug/L | |
| 52 3-Nitroaniline | | | < 0.2 | ug/L | |
| 53 Acenaphthene | | | < 0.2 | ug/L | |
| 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | E = Estimated result due to surrogate failure; result MAY be biased low |

Extracted EB-9
Extracted Date 05-01-2018

Extracted by EH, JR

| 55 Dibenzofuran | < 0.2 | ug/L |
|-----------------------------|-------|------|
| 56 4-Nitrophenol | <1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 4-Nitroaniline | < 0.2 | ug/L |
| 64 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 Hexachlorobenzene | < 0.2 | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 Pronamide | < 0.2 | ug/L |
| 72 Phenanthrene | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low E = Estimated result due to surrogate failure; result MAY be biased low Sample ID: 2018-1797

Operator: Ed Harris Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 5/30/2018 16:07 Acquisition

Extracted EB-10 Extracted Date 05-01-2018 Extracted by EH, JR

| Peaks UP Peak Name | larget Compounds | | Acc. Criteria | Reported | | |
|--|--|------------|---------------|----------|--------------|---|
| 8 Ntroberzened S (Durn) 73.4 50-150 Ug/L 3 2 -Riborophemy (Sum 7) 72.3 50-150 Ug/L 10 2 -46-Tribronophemol (Sum 47) 50-150 Ug/L 11 Repheri-44 (Sum 7) 107.0 50-150 Ug/L 12 Nterhy Methanesulfonate 0.02 Ug/L 13 Horishinesulfonate 0.02 Ug/L 14 Phenol 0.02 Ug/L 15 Riborophemol (Sum 7) 0.02 Ug/L 17 C hlorophemol 0.02 Ug/L 18 13 Dictorophemol 0.02 Ug/L 19 1,4 Dichioroberzene 0.02 Ug/L 19 1,4 Dichioroberzene 0.02 Ug/L 12 1,4 Methylphemol 0.02 Ug/L 13 1,4 Dichioroberzene 0.02 Ug/L 14 1,4 Methylphemol 0.02 Ug/L 15 1,4 Methylphemol 0.02 Ug/L 16 Riborophemol 0.02 Ug/L 17 2,4 Methylphemol 0.02 Ug/L 18 1,4 Dichioroberzene 0.02 Ug/L 19 1,4 Methylphemol 0.02 Ug/L 19 1,4 | Peaks: 91(" Peak Name | % Recovery | | • | Amount Units | Qualifier |
| 8 Ntroberzened S (Durn) 73.4 50-150 Ug/L 3 2 -Riborophemy (Sum 7) 72.3 50-150 Ug/L 10 2 -46-Tribronophemol (Sum 47) 50-150 Ug/L 11 Repheri-44 (Sum 7) 107.0 50-150 Ug/L 12 Nterhy Methanesulfonate 0.02 Ug/L 13 Horishinesulfonate 0.02 Ug/L 14 Phenol 0.02 Ug/L 15 Riborophemol (Sum 7) 0.02 Ug/L 17 C hlorophemol 0.02 Ug/L 18 13 Dictorophemol 0.02 Ug/L 19 1,4 Dichioroberzene 0.02 Ug/L 19 1,4 Dichioroberzene 0.02 Ug/L 12 1,4 Methylphemol 0.02 Ug/L 13 1,4 Dichioroberzene 0.02 Ug/L 14 1,4 Methylphemol 0.02 Ug/L 15 1,4 Methylphemol 0.02 Ug/L 16 Riborophemol 0.02 Ug/L 17 2,4 Methylphemol 0.02 Ug/L 18 1,4 Dichioroberzene 0.02 Ug/L 19 1,4 Methylphemol 0.02 Ug/L 19 1,4 | 7 2-Fluorophenol (Surr.) | 28.1 | 15-80 | | ug/L | |
| 10 2-4-6-Tribromosphend Su | 8 Nitrobenzene-d5 (Surr.) | 73.4 | 50-150 | | | |
| 10 2-4-6-Tribromopheno(Su 47.9 50-150 ug/L 11 Traphe-yids (Surr.) 107.0 50-150 ug/L 20-150 | | 72.3 | 50-150 | | | |
| Methyl Methanesulfonate | 10 2-4-6-Tribromophenol (Su | 47.9 | 50-150 | | | S= surrogate failed to recover within acceptance criteria; all analytes associated with this surrogate will be qualified as "estimated" |
| 12 Methyl Methanesulfonate | 11 Terphenyl-d14 (Surr.) | 107.0 | 50-150 | | | Analytes associated with this surrogate MAY be biased low |
| 31 thly methanesulforate 0.2 | | | | < 0.2 | | |
| 14 Phenol | | | | < 0.2 | | |
| 15 Anline | | | | < 0.2 | | |
| 15 Bid2-chlorechy) ether | | | | | | |
| 17 - Chlorophenol | 16 Bis(2-chloroethyl) ether | | | < 0.2 | | |
| 18 1.3-Dichlorobenzene | | | | | | |
| 19 1.4-Dichlorobenzene | | | | | | |
| 20 Benzy Alcohol 0.0.2 ug/L | | | | | | |
| 21 1,2 Dichlorobenzene | | | | | | |
| 22 2-Methylphenol | • | | | | | |
| 23 4-Methylphenol | , , , , , , , , , , , , , , , , , , , | | | | | |
| 24 Acetophenone <0.2 | | | | | | |
| 25 N-Nitrosodi-in-propylami | | | | | | |
| 26 Hexachloroethane 0.2 ug/L 27 Nitrobenzene 0.2 ug/L 28 N-Nitrosopiperidine ug/L 30 2-Nitrophenol 31 2,4-Dimethylphenol 32 Self-Chloroethoxy) meth | | | | | | |
| 27 Nitrobenzene | | | | | | |
| 28 N-Nitrosopiperidine < 0.2 | | | | | | |
| 29 Isophorone < 0.2 ug/L 30 2-Nitrophenol < 0.4 ug/L 31 2,4-Dimethylphenol < 0.2 ug/L 32 Bis(2-chlorechtoxy) meth < 0.2 ug/L 33 2-4-Diichlorophenol < 0.2 ug/L 34 1-2-4-Trichlorobenzene < 0.2 ug/L 35 Naphthalene < 0.2 ug/L 36 4-Chloroaniline < 0.2 ug/L 37 2-6-Dichlorophenol < 0.2 ug/L 38 Hexachlorobutadiene < 0.2 ug/L 39 N-Nitrosodibutylamine < 0.2 ug/L 40 4-Chloro-a-methylphenol < 0.2 ug/L 41 2-Methylnaphthalene < 0.2 ug/L 42 1-2-4-5-Tetrachlorobenze < 0.2 ug/L 43 Hexachlorocyclopentadien < 0.2 ug/L 44 2-4,6-Trichlorophenol < 0.2 ug/L 45 2,4,5-Trichlorophenol < 0.2 ug/L 46 2-Chloronaphthalene < 0.2 ug/L 47 1-Chloronaphthalene < 0.2 ug/L 48 2-Nitroaniline < 0.2 ug/L 49 Dimethyl-phthalate < 0.2 ug/L 49 Dimethyl-phthalate < 0.2 ug/L 49 Dimethyl-phthalate < 0.2 ug/L 50 Acenaphthylene < 0.2 ug/L 51 2-G-Dinitrobulene < 0.2 ug/L 52 3-Nitroaniline < 0.2 ug/L 53 Acenaphthylene < 0.2 ug/L 54 Acenaphthylene < 0.2 ug/L 55 Acenaphthylene < 0.2 ug/L 56 Acenaphthylene < 0.2 ug/L 57 Acenaphthylene < 0.2 ug/L 58 Acenaphthylene < 0.2 ug/L 59 Acenaphthylene < 0.2 ug/L 50 Acenaphthylene < 0.2 ug/L 50 Acenaphthylene < 0.2 ug/L 50 Acenaphthylene < 0.2 ug/L 51 Acenaphthylene < 0.2 ug/L 52 Acenaphthylene < 0.2 ug/L 53 Acenaphthylene < 0.2 ug/L 54 Acenaphthylene < 0.2 ug/L 55 Acenaphthylene < 0.2 ug/L 56 Acenaphthylene < 0.2 ug/L 57 Acenaphthylene < 0.2 ug/L 58 Acenaphthylene < 0.2 ug/L 59 Acenaphthylene < 0.2 ug/L 50 Acenapht | | | | | | |
| 30 2-Nitrophenol | | | | | | |
| 31 2,4-Dimethylphenol | | | | | | |
| 32 Bis(2-chloroethoxy) meth < 0.2 | • | | | | | L = Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup; result MAY be biased low |
| 33 2.4-Dichlorophenol <0.2 | | | | | | |
| 34 1-2-4-Trichlorobenzene < 0.2 | The state of the s | | | | | |
| 35 Naphthalene <0.2 | • | | | | | |
| 36 4-Chloroaniline < 0.2 | | | | | | |
| 37 2-6-Dichlorophenol < 0.2 | • | | | | | |
| 38 Hexachlorobutadiene < 0.2 | | | | | | |
| 39 N-Nitrosodibutylamine < 0.2 | • | | | < 0.2 | | |
| 40 4-Chloro-3-methylphenol < 0.2 | 39 N-Nitrosodibutylamine | | | < 0.2 | | |
| 41 2-Methylnaphthalene < 0.2 | | | | | | |
| 42 1-2-4-5-Tetrachlorobenze < 0.2 | | | | < 0.2 | | |
| 44 2,4,6-Trichlorophenol < 0.2 | 42 1-2-4-5-Tetrachlorobenze | | | < 0.2 | | |
| 44 2,4,6-Trichlorophenol < 0.2 | 43 Hexachlorocyclopentadien | | | < 0.2 | ug/L | |
| 45 2,4,5-Trichlorophenol < 0.2 | 44 2,4,6-Trichlorophenol | | | < 0.2 | | |
| 46 2-Chloronaphthalene < 0.2 | • | | | | | |
| 47 1-Chloronaphthalene < 0.2 | | | | < 0.2 | | |
| 48 2-Nitroaniline < 0.2 | 47 1-Chloronaphthalene | | | < 0.2 | | |
| 49 Dimethyl-phthalate < 0.2 ug/L 50 Acenaphthylene < 0.2 ug/L 51 2-6-Dinitrotoluene < 0.2 ug/L 52 3-Nitroaniline < 0.2 ug/L 53 Acenaphthene < 0.2 ug/L | 48 2-Nitroaniline | | | < 0.2 | | |
| 50 Acenaphthylene < 0.2 ug/L 51 2-6-Dinitrotoluene < 0.2 ug/L 52 3-Nitroaniline < 0.2 ug/L 53 Acenaphthene < 0.2 ug/L | 49 Dimethyl-phthalate | | | < 0.2 | | |
| 51 2-6-Dinitrotoluene < 0.2 | | | | | | |
| 52 3-Nitroaniline < 0.2 ug/L 53 Acenaphthene < 0.2 ug/L | | | | | | |
| 53 Acenaphthene < 0.2 ug/L | 52 3-Nitroaniline | | | < 0.2 | | |
| | | | | | | |
| 54 2-4-Dinitrophenol < 2.0 ug/L E=Estimated result due to surrogate failure; result MAY be biased low | 54 2-4-Dinitrophenol | | | < 2.0 | ug/L | E=Estimated result due to surrogate failure; result MAY be biased low |
| 55 Dibenzofuran < 0.2 ug/L E=Estimated result due to surrogate failure; result MAY be biased low | | | | | | |
| 56 4-Nitrophenol <1.0 ug/L E=Estimated result due to surrogate failure; result MAY be biased low | | | | | | |

| 57 | Pentachlorobenzene | < 0.2 | ug/L |
|----|--------------------------|-------|------|
| 58 | 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 | 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 | Fluorene | < 0.2 | ug/L |
| 61 | Diethylphthalate | < 0.2 | ug/L |
| 62 | 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| 63 | 4-Nitroaniline | < 0.2 | ug/L |
| 64 | 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| 65 | Diphenylamine | < 0.2 | ug/L |
| 66 | Azobenzene | < 0.2 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 0.2 | ug/L |
| 68 | Hexachlorobenzene | < 0.2 | ug/L |
| 69 | Pentachlorophenol | < 1.0 | ug/L |
| 70 | Pentachloronitrobenzene | < 0.2 | ug/L |
| 71 | Pronamide | < 0.2 | ug/L |
| 72 | Phenanthrene | < 0.2 | ug/L |
| 73 | Anthracene | < 0.2 | ug/L |
| 74 | Carbazole | < 0.2 | ug/L |
| 75 | Di-n-butylphthalate | < 0.2 | ug/L |
| 76 | Fluoranthene | < 0.2 | ug/L |
| 77 | Pyrene | < 0.2 | ug/L |
| 78 | Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 | Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 | Benz[a]anthracene | < 0.2 | ug/L |
| 81 | Chrysene | < 0.2 | ug/L |
| | Bis(2-ethylhexyl) phthal | 0.23 | ug/L |
| | Di-n-octyl phthalate | < 0.2 | ug/L |
| | Benzo[b]fluoranthene | < 0.2 | ug/L |
| | Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | Benzo(k)fluoranthene | < 0.2 | ug/L |
| | Benzo(a)pyrene | < 0.2 | ug/L |
| | 3-Methylcholanthrene | < 0.2 | ug/L |
| | Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | Benzo(ghi)perylene | < 0.2 | ug/L |

E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low E=Estimated result due to surrogate failure; result MAY be biased low

Sample ID: 2018-1798 1-10

Operator: Ed Harris

Instrument MS Instrument #1
Last Calibra 5/24/2018 11:27
Acquisition 5/30/2018 16:36

51 2-6-Dinitrotoluene

52 3-Nitroaniline

53 Acenaphthene

55 Dibenzofuran

56 4-Nitrophenol

60 Fluorene

54 2-4-Dinitrophenol

57 Pentachlorobenzene

59 2-3-4-6-Tetrachloropheno

62 4-Chlorophenyl-phenyl et

58 2-4-Dinitrotoluene

61 Diethylphthalate

Target Compounds

Extracted IDW-1 Extracted Date 05-01-2018 Extracted by EH, JR

<2.0

<2.0

<20.0

< 10.0

< 2.0

< 2.0

< 4.0

< 2.0

< 2.0

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

3.4 ug/L

Rep. limit = 2.0 ug/L

E = Estimated result due to surrogate failure; result MAY be biased low

E = Estimated result due to surrogate failure; result MAY be biased low

E = Estimated result due to surrogate failure; result MAY be biased low

E = Estimated result due to surrogate failure; result MAY be biased low

E = Estimated result due to surrogate failure; result MAY be biased low

E = Estimated result due to surrogate failure; result MAY be biased low

E = Estimated result due to surrogate failure; result MAY be biased low

Rep. limit = 2.0 ug/L E = Estimated result due to surrogate failure; result MAY be biased low

7.41 ug/L

4.0 ug/L

Reported Acc. Criteria Peaks: 91("Peak Name % Recovery % Rec. Result Amount Units Qualifier 7 2-Fluorophenol (Surr.) 24.5 15-80 ug/L 8 Nitrobenzene-d5 (Surr.) 72.5 50-150 ug/L 9 2-Fluorobiphenyl (Surr.) 74.2 50-150 ug/L S = Surrogate failed to recover within acceptance criteria; all analytes associated with this surrogate will be qualified as "estimated" 10 2-4-6-Tribromophenol (Su 36.8 50-150 ug/L 101.5 Analytes associated with this surrogate MAY be biased low 11 Terphenyl-d14 (Surr.) 50-150 ug/L 12 Methyl Methanesulfonate <2.0 ug/L 13 Ethyl methanesulfonate <2.0 ug/L 14 Phenol <2.0 ug/L 15 Aniline <2.0 ug/L 16 Bis(2-chloroethyl) ether <2.0 ug/L 17 2-Chlorophenol <2.0 ug/L 18 1,3-Dichlorobenzene <2.0 ug/L 19 1,4-Dichlorobenzene <2.0 ug/L 20 Benzyl Alcohol <2.0 ug/L 21 1,2-Dichlorobenzene < 2.0 ug/L 22 2-Methylphenol <2.0 ug/L 23 4-Methylphenol <2.0 ug/L 24 Acetophenone <2.0 ug/L 25 N-Nitroso-di-n-propylami <2.0 ug/L 26 Hexachloroethane <2.0 ug/L <2.0 27 Nitrobenzene ug/L <2.0 28 N-Nitrosopiperidine ug/L 29 Isophorone <2.0 ug/L 30 2-Nitrophenol <4.0 ug/L 31 2,4-Dimethylphenol <2.0 ug/L L = Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup; result MAY be biased low 32 Bis(2-chloroethoxy) meth <2.0 ug/L 33 2-4-Dichlorophenol <2.0 ug/L 34 1-2-4-Trichlorobenzene <2.0 ug/L 35 Naphthalene 2.91 ug/L Rep. limit = 2.0 ug/L 36 4-Chloroaniline <2.0 ug/L 37 2-6-Dichlorophenol <2.0 ug/L 38 Hexachlorobutadiene <2.0 ug/L 39 N-Nitrosodibutylamine <2.0 ug/L 40 4-Chloro-3-methylphenol <2.0 ug/L 41 2-Methylnaphthalene <2.0 ug/L 42 1-2-4-5-Tetrachlorobenze <2.0 ug/L 43 Hexachlorocyclopentadien <2.0 ug/L 44 2,4,6-Trichlorophenol <2.0 ug/L 45 2,4,5-Trichlorophenol < 2.0 ug/L 46 2-Chloronaphthalene <2.0 ug/L 47 1-Chloronaphthalene <2.0 ug/L 48 2-Nitroaniline <2.0 ug/L 49 Dimethyl-phthalate <2.0 ug/L 50 Acenaphthylene <2.0 ug/L

| 63 | 4-Nitroaniline | < 2.0 | ug/L |
|----|--------------------------|--------|------|
| 64 | 4-6-Dintro-2-methylpheno | < 20.0 | ug/L |
| 65 | Diphenylamine | < 2.0 | ug/L |
| 66 | Azobenzene | < 2.0 | ug/L |
| 67 | 4-Bromophenyl-phenyl eth | < 2.0 | ug/L |
| 68 | Hexachlorobenzene | < 2.0 | ug/L |
| 69 | Pentachlorophenol | 11.4 | ug/L |
| 70 | Pentachloronitrobenzene | < 2.0 | ug/L |
| 71 | Pronamide | < 2.0 | ug/L |
| 72 | Phenanthrene | 2.7 | ug/L |
| 73 | Anthracene | < 2.0 | ug/L |
| 74 | Carbazole | < 2.0 | ug/L |
| 75 | Di-n-butylphthalate | 5.1 | ug/L |
| 76 | Fluoranthene | < 2.0 | ug/L |
| 77 | Pyrene | < 2.0 | ug/L |
| 78 | Dimethylaminoazobenzene | < 2.0 | ug/L |
| 79 | Butylbenzyl phthalate | < 2.0 | ug/L |
| 80 | Benz[a]anthracene | < 2.0 | ug/L |
| 81 | Chrysene | < 2.0 | ug/L |
| 82 | Bis(2-ethylhexyl) phthal | 2.1 | ug/L |
| 83 | Di-n-octyl phthalate | < 2.0 | ug/L |
| 84 | Benzo[b]fluoranthene | < 2.0 | ug/L |
| 85 | Dimethylbenzo(a)anthrace | < 2.0 | ug/L |
| 86 | Benzo(k)fluoranthene | < 2.0 | ug/L |
| 87 | Benzo(a)pyrene | < 2.0 | ug/L |
| 88 | 3-Methylcholanthrene | < 2.0 | ug/L |
| 89 | Indeno[1-2-3-cd]pyrene | < 2.0 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 2.0 | ug/L |
| 91 | Benzo(ghi)perylene | < 2.0 | ug/L |
| | | | |

E = Estimated result due to surrogate failure; result MAY be biased low
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E = Estimated result due to surrogate failure; result MAY be biased low
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E = Estimated result due to surrogate failure; result MAY be biased low
E = Estimated result due to surrogate failure; result MAY be biased low
E = Estimated result due to surrogate failure; result MAY be biased low

Rep. limit = 2.0 ug/L

Rep. limit = 2.0 ug/L

Sample ID: Ext Blank Operator: Ed Harris

Instrument MS Instrument #1
Last Calibra 5/24/2018 11:27
Acquisition 5/30/2018 9:09

Target Compounds

| Target Con | npounds | | | | | |
|------------|---|------------|-----|---------------|----------------|--------------|
| D L 04/II | | 0/ 0 | | Acc. Criteria | Reported | A |
| • | Peak Name | % Recovery | | % Rec. | Result | Amount Units |
| | 2-Fluorophenol (Surr.) | | 4.4 | 15-80 | | ug/L |
| | Nitrobenzene-d5 (Surr.) | | 6.7 | 50-150 | | ug/L |
| | 2-Fluorobiphenyl (Surr.) 2-4-6-Tribromophenol (S | | 6.9 | 50-150 | | ug/L |
| | . , | | 9.3 | 50-150 | | ug/L |
| | Terphenyl-d14 (Surr.) Methyl Methanesulfona | 133 | 3.5 | 50-150 | < 0.2 | ug/L |
| | • | te | | | < 0.2 | ug/L |
| | Ethyl methanesulfonate Phenol | | | | < 0.2 | ug/L |
| = : | Aniline | | | | < 0.2 | ug/L |
| | | | | | | ug/L |
| | Bis(2-chloroethyl) ether | | | | < 0.2 | ug/L |
| | 2-Chlorophenol | | | | < 0.2 | ug/L |
| | 1,3-Dichlorobenzene 1,4-Dichlorobenzene | | | | < 0.2 | ug/L |
| | • | | | | < 0.2 < 0.2 | ug/L |
| | Benzyl Alcohol 1,2-Dichlorobenzene | | | | < 0.2 | ug/L ug/L |
| | = | | | | < 0.2 | ug/L ug/L |
| | 2-Methylphenol 4-Methylphenol | | | | < 0.2 | ug/L ug/L |
| | Acetophenone | | | | < 0.2 | ug/L ug/L |
| | N-Nitroso-di-n-propylam | i | | | < 0.2 | ug/L ug/L |
| | Hexachloroethane | | | | < 0.2 | ug/L ug/L |
| | Nitrobenzene | | | | < 0.2 | ug/L ug/L |
| =- | N-Nitrosopiperidine | | | | < 0.2 | ug/L ug/L |
| | Isophorone | | | | < 0.2 | ug/L ug/L |
| | 2-Nitrophenol | | | | < 0.4 | ug/L ug/L |
| | 2,4-Dimethylphenol | | | | < 0.4 | ug/L |
| | Bis(2-chloroethoxy) met | h | | | < 0.2 | ug/L |
| | 2-4-Dichlorophenol | | | | < 0.2 | ug/L |
| | 1-2-4-Trichlorobenzene | | | | < 0.2 | ug/L |
| | Naphthalene | | | | < 0.2 | ug/L |
| | 4-Chloroaniline | | | | < 0.2 | ug/L |
| | 2-6-Dichlorophenol | | | | < 0.2 | ug/L |
| | Hexachlorobutadiene | | | | < 0.2 | ug/L |
| | N-Nitrosodibutylamine | | | | < 0.2 | ug/L |
| | 4-Chloro-3-methylpheno | ol | | | < 0.2 | ug/L |
| | 2-Methylnaphthalene | | | | < 0.2 | ug/L |
| | 1-2-4-5-Tetrachlorobenz | e | | | < 0.2 | ug/L |
| | Hexachlorocyclopentadio | | | | < 0.2 | ug/L |
| | 2,4,6-Trichlorophenol | | | | < 0.2 | ug/L |
| | | | | | - | <u>.</u> |

Extracted Method Blank

Extracted Date 05-01-2018 Extracted by EH, JR

| 45 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|--|-------|--------------|
| 46 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 2-Nitroaniline | < 0.2 | ug/L |
| 49 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 Acenaphthylene | < 0.2 | ug/L |
| 51 2-6-Dinitrotoluene | < 0.2 | ug/L |
| 52 3-Nitroaniline | < 0.2 | ug/L |
| 53 Acenaphthene | < 0.2 | ug/L |
| 54 2-4-Dinitrophenol | < 2.0 | ug/L |
| 55 Dibenzofuran | < 0.2 | ug/L |
| 56 4-Nitrophenol | < 1.0 | ug/L |
| 57 Pentachlorobenzene | < 0.2 | ug/L |
| 58 2-4-Dinitrotoluene | < 0.2 | ug/L |
| 59 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| 60 Fluorene | < 0.2 | ug/L ug/L |
| 61 Diethylphthalate | < 0.2 | ug/L ug/L |
| 62 4-Chlorophenyl-phenyl et | < 0.2 | ug/L ug/L |
| 63 4-Nitroaniline | < 0.2 | |
| | < 2.0 | ug/L |
| 64 4-6-Dintro-2-methylpheno 65 Diphenylamine | < 0.2 | ug/L |
| 66 Azobenzene | < 0.2 | ug/L |
| | < 0.2 | ug/L |
| 67 4-Bromophenyl-phenyl eth 68 Hexachlorobenzene | < 0.2 | ug/L |
| | | ug/L |
| 69 Pentachlorophenol | < 1.0 | ug/L |
| 70 Pentachloronitrobenzene 71 Pronamide | < 0.2 | ug/L |
| 71 Pronamice 72 Phenanthrene | < 0.2 | ug/L |
| | < 0.2 | ug/L |
| 73 Anthracene | < 0.2 | ug/L |
| 74 Carbazole | < 0.2 | ug/L |
| 75 Di-n-butylphthalate | < 0.2 | ug/L |
| 76 Fluoranthene | < 0.2 | ug/L |
| 77 Pyrene | < 0.2 | ug/L |
| 78 Dimethylaminoazobenzene | < 0.2 | ug/L |
| 79 Butylbenzyl phthalate | < 0.2 | ug/L |
| 80 Benz[a]anthracene | < 0.2 | ug/L |
| 81 Chrysene | < 0.2 | ug/L |
| 82 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 Benzo(ghi)perylene | < 0.2 | ug/L |
| | | |

Sample ID: LCS-1 5-1-18

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 9:38

Target Compounds

| | | | Acc. Criteria |
|-------------|--------------------------|------------|---------------|
| Peaks: 91(' | Peak Name | % Recovery | % Rec. |
| 7 | 2-Fluorophenol (Surr.) | 57.8 | 15-80 |
| 8 | Nitrobenzene-d5 (Surr.) | 98.7 | 50-150 |
| 9 | 2-Fluorobiphenyl (Surr.) | 91.7 | 50-150 |
| 10 | 2-4-6-Tribromophenol (Su | 90.5 | 50-150 |
| 11 | Terphenyl-d14 (Surr.) | 110.8 | 50-150 |
| 12 | Methyl Methanesulfonate | 98.9 | 50-150 |
| 13 | Ethyl methanesulfonate | 120.2 | 50-150 |
| 14 | Phenol | 60.2 | 30-120 |
| 15 | Aniline | 69.7 | 50-150 |
| 16 | Bis(2-chloroethyl) ether | 118.3 | 50-150 |
| 17 | 2-Chlorophenol | 106.6 | 30-120 |
| 18 | 1,3-Dichlorobenzene | 69.0 | 50-150 |
| 19 | 1,4-Dichlorobenzene | 76.2 | 50-150 |
| 20 | Benzyl Alcohol | 112.6 | 50-150 |
| 21 | 1,2-Dichlorobenzene | 81.2 | 50-150 |
| 22 | 2-Methylphenol | 94.2 | 30-120 |
| 23 | 4-Methylphenol | 86.9 | 30-120 |
| 24 | Acetophenone | 117.0 | 50-150 |
| 25 | N-Nitroso-di-n-propylami | 119.5 | 50-150 |
| 26 | Hexachloroethane | 57.1 | 50-150 |
| 27 | Nitrobenzene | 114.2 | 50-150 |
| 28 | N-Nitrosopiperidine | 141.6 | 50-150 |
| 29 | Isophorone | 123.3 | 50-150 |
| 30 | 2-Nitrophenol | 109.7 | 30-120 |
| 31 | 2,4-Dimethylphenol | 27.4 | 30-120 |
| 32 | Bis(2-chloroethoxy) meth | 112.7 | 50-150 |
| 33 | 2-4-Dichlorophenol | 108.7 | 30-120 |
| 34 | 1-2-4-Trichlorobenzene | 83.9 | 50-150 |
| 35 | Naphthalene | 101.7 | 50-150 |
| 36 | 4-Chloroaniline | 94.8 | 50-150 |
| 37 | 2-6-Dichlorophenol | 106.9 | 30-120 |
| 38 | Hexachlorobutadiene | 55.8 | 50-150 |
| 39 | N-Nitrosodibutylamine | 121.5 | 50-150 |
| 40 | 4-Chloro-3-methylphenol | 105.2 | 30-120 |
| 41 | 2-Methylnaphthalene | 103.1 | 50-150 |
| 42 | 1-2-4-5-Tetrachlorobenze | 90.9 | 50-150 |
| 43 | Hexachlorocyclopentadien | 75.0 | 50-150 |
| | 2,4,6-Trichlorophenol | 105.6 | 30-120 |
| 45 | 2,4,5-Trichlorophenol | 109.8 | 30-120 |
| 46 | 2-Chloronaphthalene | 115.3 | 50-150 |
| | 1-Chloronaphthalene | 118.3 | 50-150 |
| | 2-Nitroaniline | 120.3 | 50-150 |
| | Dimethyl-phthalate | 126.7 | 50-150 |
| 50 | Acenaphthylene | 113.4 | 50-150 |

Extracted LCS-1

Extracted Date 05-01-2018 Extracted by EH, JR

Qualifier

R= RPD of LCS/LCS dup did not meet acceptance criteria R= RPD of LCS/LCS dup did not meet acceptance criteria

L= Analyte failed (low) to recover within acceptance criteria in the LCS and/or LCS dup; R - RPD did not meet acc. Criteria

| 51 2-6-Dinitrotoluene | 116.9 | 50-150 |
|-----------------------------|-------|--------|
| 52 3-Nitroaniline | 110.9 | 50-150 |
| 53 Acenaphthene | 115.5 | 50-150 |
| 54 2-4-Dinitrophenol | 96.8 | 30-120 |
| 55 Dibenzofuran | 112.0 | 50-150 |
| 56 4-Nitrophenol | 45.3 | 30-120 |
| 57 Pentachlorobenzene | 96.4 | 50-150 |
| 58 2-4-Dinitrotoluene | 124.6 | 50-150 |
| 59 2-3-4-6-Tetrachloropheno | 110.9 | 30-120 |
| 60 Fluorene | 121.2 | 50-150 |
| 61 Diethylphthalate | 125.4 | 50-150 |
| 62 4-Chlorophenyl-phenyl et | 113.6 | 50-150 |
| 63 4-Nitroaniline | 99.5 | 50-150 |
| 64 4-6-Dintro-2-methylpheno | 108.7 | 30-120 |
| 65 Diphenylamine | 115.3 | 50-150 |
| 66 Azobenzene | 111.7 | 50-150 |
| 67 4-Bromophenyl-phenyl eth | 104.6 | 50-150 |
| 68 Hexachlorobenzene | 105.2 | 50-150 |
| 69 Pentachlorophenol | 101.4 | 30-120 |
| 70 Pentachloronitrobenzene | 105.3 | 50-150 |
| 71 Pronamide | 115.9 | 50-150 |
| 72 Phenanthrene | 113.1 | 50-150 |
| 73 Anthracene | 110.8 | 50-150 |
| 74 Carbazole | 113.7 | 50-150 |
| 75 Di-n-butylphthalate | 166.9 | 50-150 |
| 76 Fluoranthene | 112.2 | 50-150 |
| 77 Pyrene | 128.3 | 50-150 |
| 78 Dimethylaminoazobenzene | 125.2 | 50-150 |
| 79 Butylbenzyl phthalate | 131.6 | 50-150 |
| 80 Benz[a]anthracene | 126.3 | 50-150 |
| 81 Chrysene | 124.4 | 50-150 |
| 82 Bis(2-ethylhexyl) phthal | 128.6 | 50-150 |
| 83 Di-n-octyl phthalate | 108.4 | 50-150 |
| 84 Benzo[b]fluoranthene | 103.1 | 50-150 |
| 85 Dimethylbenzo(a)anthrace | 100.3 | 50-150 |
| 86 Benzo(k)fluoranthene | 107.5 | 50-150 |
| 87 Benzo(a)pyrene | 94.1 | 50-150 |
| 88 3-Methylcholanthrene | 78.4 | 50-150 |
| 89 Indeno[1-2-3-cd]pyrene | 86.4 | 50-150 |
| 90 Dibenz(a-h)anthracene | 85.7 | 50-150 |
| 91 Benzo(ghi)perylene | 92.1 | 50-150 |
| | | |

R= RPD of LCS/LCS dup did not meet acceptance criteria

Sample ID: LCS-2 5-1-18

Operator: Ed Harris

Instrument MS Instrument #1

Last Calibra 5/24/2018 11:27 Acquisition 5/30/2018 10:07

Target Compounds

Extracted LCS-2 Extracted Date 05-01-2018 Extracted by EH, JR

| | | | Acc. Criteria | Acc. Criteria | Qualifier |
|-----------------------------|---------------|-------|---------------|---------------|--|
| Peaks: 91("Peak Name | % Recovery RP | D (%) | % Rec. | RPD | |
| 7 2-Fluorophenol (Surr.) | 47.4 | | 15-80 | | |
| 8 Nitrobenzene-d5 (Surr.) | 81.9 | | 50-150 | | |
| 9 2-Fluorobiphenyl (Surr.) | 77.2 | | 50-150 | | |
| 10 2-4-6-Tribromophenol (Su | 80.4 | | 50-150 | | |
| 11 Terphenyl-d14 (Surr.) | 100.3 | | 50-150 | | |
| 12 Methyl Methanesulfonate | 79.6 | 11.4 | 50-150 | 0-20 | |
| 13 Ethyl methanesulfonate | 94.9 | 13.5 | 50-150 | 0-20 | |
| 14 Phenol | 47.9 | 11.1 | 30-120 | 0-20 | |
| 15 Aniline | 61.7 | 3.8 | 50-150 | 0-20 | |
| 16 Bis(2-chloroethyl) ether | 93.6 | 12.6 | 50-150 | 0-20 | |
| 17 2-Chlorophenol | 83.3 | 10.0 | 30-120 | 0-20 | |
| 18 1,3-Dichlorobenzene | 59.1 | 10.3 | 50-150 | 0-20 | |
| 19 1,4-Dichlorobenzene | 64.6 | 11.2 | 50-150 | 0-20 | |
| 20 Benzyl Alcohol | 88.5 | 17.6 | 50-150 | 0-20 | |
| 21 1,2-Dichlorobenzene | 67.0 | 13.7 | 50-150 | 0-20 | |
| 22 2-Methylphenol | 82.9 | 6.0 | 30-120 | 0-20 | |
| 23 4-Methylphenol | 77.2 | 2.6 | 30-120 | 0-20 | |
| 24 Acetophenone | 97.7 | 17.3 | 50-150 | 0-20 | |
| 25 N-Nitroso-di-n-propylami | 96.5 | 17.6 | 50-150 | 0-20 | |
| 26 Hexachloroethane | 52.2 | 21.2 | 50-150 | 0-20 | R= RPD of LCS/LCS dup did not meet acceptance criteria |
| 27 Nitrobenzene | 85.7 | 24.9 | 50-150 | 0-20 | R= RPD of LCS/LCS dup did not meet acceptance criteria |
| 28 N-Nitrosopiperidine | 120.8 | 11.0 | 50-150 | 0-20 | |
| 29 Isophorone | 100.8 | 16.9 | 50-150 | 0-20 | |
| 30 2-Nitrophenol | 91.1 | 12.2 | 30-120 | 0-20 | |
| 31 2,4-Dimethylphenol | 77.9 | 41.1 | 30-120 | 0-20 | R= RPD of LCS/LCS dup did not meet acceptance criteria |
| 32 Bis(2-chloroethoxy) meth | 93.1 | 15.7 | 50-150 | 0-20 | |
| 33 2-4-Dichlorophenol | 90.7 | 13.3 | 30-120 | 0-20 | |
| 34 1-2-4-Trichlorobenzene | 71.8 | 19.1 | 50-150 | 0-20 | |
| 35 Naphthalene | 86.2 | 14.2 | 50-150 | 0-20 | |
| 36 4-Chloroaniline | 83.2 | 9.4 | 50-150 | 0-20 | |
| 37 2-6-Dichlorophenol | 92.6 | 14.9 | 30-120 | 0-20 | |
| 38 Hexachlorobutadiene | 51.2 | 18.2 | 50-150 | 0-20 | |
| 39 N-Nitrosodibutylamine | 102.6 | 13.4 | 50-150 | 0-20 | |
| 40 4-Chloro-3-methylphenol | 92.1 | 8.9 | 30-120 | 0-20 | |
| 41 2-Methylnaphthalene | 88.0 | 13.5 | 50-150 | 0-20 | |
| 42 1-2-4-5-Tetrachlorobenze | 75.3 | 21.5 | 50-150 | 0-20 | |
| 43 Hexachlorocyclopentadien | 62.1 | 19.6 | 50-150 | 0-20 | |
| 44 2,4,6-Trichlorophenol | 92.3 | 15.3 | 30-120 | 0-20 | |
| | | | | | |

| 45 2,4,5-Trichlorophenol | 94.1 | 9.6 | 30-120 | 0-20 |
|-----------------------------|-------|------|--------|------|
| 46 2-Chloronaphthalene | 89.0 | 12.0 | 50-150 | 0-20 |
| 47 1-Chloronaphthalene | 91.8 | 8.5 | 50-150 | 0-20 |
| 48 2-Nitroaniline | 107.9 | 7.3 | 50-150 | 0-20 |
| 49 Dimethyl-phthalate | 104.7 | 10.3 | 50-150 | 0-20 |
| 50 Acenaphthylene | 98.4 | 12.1 | 50-150 | 0-20 |
| 51 2-6-Dinitrotoluene | 99.7 | 1.9 | 50-150 | 0-20 |
| 52 3-Nitroaniline | 105.7 | 2.9 | 50-150 | 0-20 |
| 53 Acenaphthene | 96.6 | 12.8 | 50-150 | 0-20 |
| 54 2-4-Dinitrophenol | 92.0 | 9.5 | 30-120 | 0-20 |
| 55 Dibenzofuran | 98.9 | 10.6 | 50-150 | 0-20 |
| 56 4-Nitrophenol | 47.2 | 5.3 | 30-120 | 0-20 |
| 57 Pentachlorobenzene | 87.8 | 10.9 | 50-150 | 0-20 |
| 58 2-4-Dinitrotoluene | 108.8 | 6.3 | 50-150 | 0-20 |
| 59 2-3-4-6-Tetrachloropheno | 99.8 | 6.7 | 30-120 | 0-20 |
| 60 Fluorene | 108.5 | 7.8 | 50-150 | 0-20 |
| 61 Diethylphthalate | 107.4 | 7.9 | 50-150 | 0-20 |
| 62 4-Chlorophenyl-phenyl et | 101.3 | 1.5 | 50-150 | 0-20 |
| 63 4-Nitroaniline | 102.4 | 6.5 | 50-150 | 0-20 |
| 64 4-6-Dintro-2-methylpheno | 92.9 | 8.5 | 30-120 | 0-20 |
| 65 Diphenylamine | 98.4 | 4.3 | 50-150 | 0-20 |
| 66 Azobenzene | 92.0 | 9.5 | 50-150 | 0-20 |
| 67 4-Bromophenyl-phenyl eth | 95.1 | 11.9 | 50-150 | 0-20 |
| 68 Hexachlorobenzene | 90.0 | 20.5 | 50-150 | 0-20 |
| 69 Pentachlorophenol | 88.7 | 13.2 | 30-120 | 0-20 |
| 70 Pentachloronitrobenzene | 92.8 | 16.1 | 50-150 | 0-20 |
| 71 Pronamide | 107.7 | 12.5 | 50-150 | 0-20 |
| 72 Phenanthrene | 97.6 | 10.5 | 50-150 | 0-20 |
| 73 Anthracene | 98.5 | 5.0 | 50-150 | 0-20 |
| 74 Carbazole | 100.5 | 14.7 | 50-150 | 0-20 |
| 75 Di-n-butylphthalate | 147.4 | 11.5 | 50-150 | 0-20 |
| 76 Fluoranthene | 104.7 | 12.7 | 50-150 | 0-20 |
| 77 Pyrene | 106.6 | 8.3 | 50-150 | 0-20 |
| 78 Dimethylaminoazobenzene | 121.3 | 6.5 | 50-150 | 0-20 |
| 79 Butylbenzyl phthalate | 121.6 | 3.9 | 50-150 | 0-20 |
| 80 Benz[a]anthracene | 114.0 | 3.6 | 50-150 | 0-20 |
| 81 Chrysene | 113.0 | 5.5 | 50-150 | 0-20 |
| 82 Bis(2-ethylhexyl) phthal | 121.9 | 7.0 | 50-150 | 0-20 |
| 83 Di-n-octyl phthalate | 103.3 | 5.5 | 50-150 | 0-20 |
| 84 Benzo[b]fluoranthene | 96.2 | 14.2 | 50-150 | 0-20 |
| 85 Dimethylbenzo(a)anthrace | 93.2 | 11.3 | 50-150 | 0-20 |
| 86 Benzo(k)fluoranthene | 99.4 | 5.8 | 50-150 | 0-20 |
| 87 Benzo(a)pyrene | 90.8 | 12.1 | 50-150 | 0-20 |
| 88 3-Methylcholanthrene | 76.1 | 3.8 | 50-150 | 0-20 |
| 89 Indeno[1-2-3-cd]pyrene | 73.3 | 14.6 | 50-150 | 0-20 |
| 90 Dibenz(a-h)anthracene | 71.7 | 15.8 | 50-150 | 0-20 |
| 91 Benzo(ghi)perylene | 74.7 | 16.8 | 50-150 | 0-20 |
| | | | | |

R= RPD of LCS/LCS dup did not meet acceptance criteria

Sample ID: Operator:

2018-1778 Ed Harris

MS Instrument #1

Extracted Sample MW-19S Extracted Date 04-26-2018 Extracted by EH, JR

Instrument ID: Last Calibration: Acquisition Date:

5/24/2018 11:27 5/24/2018 21:26

| Peaks: 91("#" | Pea |
|---------------|-----|

| | | | Acc. Criteria | Reported | |
|----|--------------------------|------------|---------------|----------|--------------|
| | Peak Name | % Recovery | % Recovery | Result | Amount Units |
| 7 | 2-Fluorophenol (Surr.) | 45.2 | 15-80 | | ug/L |
| 8 | Nitrobenzene-d5 (Surr.) | 59.8 | 50-150 | | ug/L |
| 9 | 2-Fluorobiphenyl (Surr.) | 58.9 | 50-150 | | ug/L |
| 10 | 2-4-6-Tribromophenol (Su | 63 | 50-150 | | ug/L |
| 11 | Terphenyl-d14 (Surr.) | 65 | 50-150 | | ug/L |
| 12 | Methyl Methanesulfonate | | | < 0.2 | ug/L |
| 13 | Ethyl methanesulfonate | | | < 0.2 | ug/L |
| 14 | Phenol | | | < 0.2 | ug/L |
| 15 | Aniline | | | < 0.2 | ug/L |
| 16 | Bis(2-chloroethyl) ether | | | < 0.2 | ug/L |
| 17 | 2-Chlorophenol | | | < 0.2 | ug/L |
| 18 | 1,3-Dichlorobenzene | | | < 0.2 | ug/L |
| 19 | 1,4-Dichlorobenzene | | | < 0.2 | ug/L |
| 20 | Benzyl Alcohol | | | 0.26 | ug/L |
| 21 | 1,2-Dichlorobenzene | | | < 0.2 | ug/L |
| 22 | 2-Methylphenol | | | < 0.2 | ug/L |
| 23 | 4-Methylphenol | | | < 0.2 | ug/L |
| 24 | Acetophenone | | | < 0.2 | ug/L |
| 25 | N-Nitroso-di-n-propylami | | | < 0.2 | ug/L |
| 26 | Hexachloroethane | | | < 0.2 | ug/L |
| 27 | Nitrobenzene | | | < 0.2 | ug/L |
| 28 | N-Nitrosopiperidine | | | < 0.2 | ug/L |
| 29 | Isophorone | | | < 0.2 | ug/L |
| 30 | 2-Nitrophenol | | | < 0.4 | ug/L |
| 31 | 2,4-Dimethylphenol | | | < 0.2 | ug/L |
| 32 | Bis(2-chloroethoxy) meth | | | < 0.2 | ug/L |
| 33 | 2-4-Dichlorophenol | | | < 0.2 | ug/L |
| 34 | 1-2-4-Trichlorobenzene | | | < 0.2 | ug/L |
| 35 | Naphthalene | | | < 0.2 | ug/L |
| 36 | 4-Chloroaniline | | | < 0.2 | ug/L |
| 37 | 2-6-Dichlorophenol | | | < 0.2 | ug/L |
| 38 | Hexachlorobutadiene | | | < 0.2 | ug/L |
| 39 | N-Nitrosodibutylamine | | | < 0.2 | ug/L |
| 40 | 4-Chloro-3-methylphenol | | | < 0.2 | ug/L |
| 41 | 2-Methylnaphthalene | | | < 0.2 | ug/L |
| 42 | 1-2-4-5-Tetrachlorobenze | | | < 0.2 | ug/L |
| 43 | Hexachlorocyclopentadien | | | < 0.2 | ug/L |
| 44 | 2,4,6-Trichlorophenol | | | < 0.2 | ug/L |
| | | | | | |

| 45 | 5 2,4,5-Trichlorophenol | < 0.2 | ug/L |
|----|---|----------------|--------------|
| 46 | 5 2-Chloronaphthalene | < 0.2 | ug/L |
| 47 | 7 1-Chloronaphthalene | < 0.2 | ug/L |
| 48 | 3 2-Nitroaniline | < 0.2 | ug/L |
| 49 | 9 Dimethyl-phthalate | < 0.2 | ug/L |
| 50 |) Acenaphthylene | < 0.2 | ug/L |
| | 1 2-6-Dinitrotoluene | < 0.2 | ug/L |
| | 2 3-Nitroaniline | < 0.2 | ug/L |
| | 3 Acenaphthene | < 0.2 | ug/L |
| | 2-4-Dinitrophenol | < 2.0 | ug/L |
| | 5 Dibenzofuran | < 0.2 | ug/L |
| | 5 4-Nitrophenol | < 1.0 | ug/L |
| | 7 Pentachlorobenzene | < 0.2 | ug/L |
| | 3 2-4-Dinitrotoluene | < 0.2 | ug/L |
| | 9 2-3-4-6-Tetrachloropheno | < 0.4 | ug/L |
| |) Fluorene | < 0.2 | ug/L |
| | L Diethylphthalate | < 0.2 | ug/L |
| | 2 4-Chlorophenyl-phenyl et | < 0.2 | ug/L |
| | 3 4-Nitroaniline | < 0.2 | ug/L |
| | 4 4-6-Dintro-2-methylpheno | < 2.0 | ug/L |
| | 5 Diphenylamine | < 0.2 | ug/L |
| | 5 Azobenzene | < 0.2 < 0.2 | ug/L |
| | 7 4-Bromophenyl-phenyl eth 3 Hexachlorobenzene | < 0.2 | ug/L |
| | | < 1.0 | ug/L |
| | 9 Pentachlorophenol 9 Pentachloronitrobenzene | < 0.2 | ug/L ug/L |
| | L Pronamide | < 0.2 | ug/L ug/L |
| | 2 Phenanthrene | < 0.2 | ug/L ug/L |
| | 3 Anthracene | < 0.2 | ug/L ug/L |
| | 1 Carbazole | < 0.2 | ug/L |
| | 5 Di-n-butylphthalate | < 0.2 | ug/L |
| | 5 Fluoranthene | < 0.2 | ug/L |
| | 7 Pyrene | < 0.2 | ug/L |
| | 3 Dimethylaminoazobenzene | < 0.2 | ug/L |
| | Butylbenzyl phthalate | < 0.2 | ug/L |
| | D Benz[a]anthracene | < 0.2 | ug/L |
| | L Chrysene | < 0.2 | ug/L |
| | 2 Bis(2-ethylhexyl) phthal | < 0.2 | ug/L |
| 83 | B Di-n-octyl phthalate | < 0.2 | ug/L |
| 84 | Benzo[b]fluoranthene | < 0.2 | ug/L |
| 85 | 5 Dimethylbenzo(a)anthrace | < 0.2 | ug/L |
| 86 | 5 Benzo(k)fluoranthene | < 0.2 | ug/L |
| 87 | 7 Benzo(a)pyrene | < 0.2 | ug/L |
| 88 | 3 3-Methylcholanthrene | < 0.2 | ug/L |
| 89 | 9 Indeno[1-2-3-cd]pyrene | < 0.2 | ug/L |
| 90 | Dibenz(a-h)anthracene | < 0.2 | ug/L |
| 91 | L Benzo(ghi)perylene | < 0.2 | ug/L |
| | | | |



IDW Waste Manifest

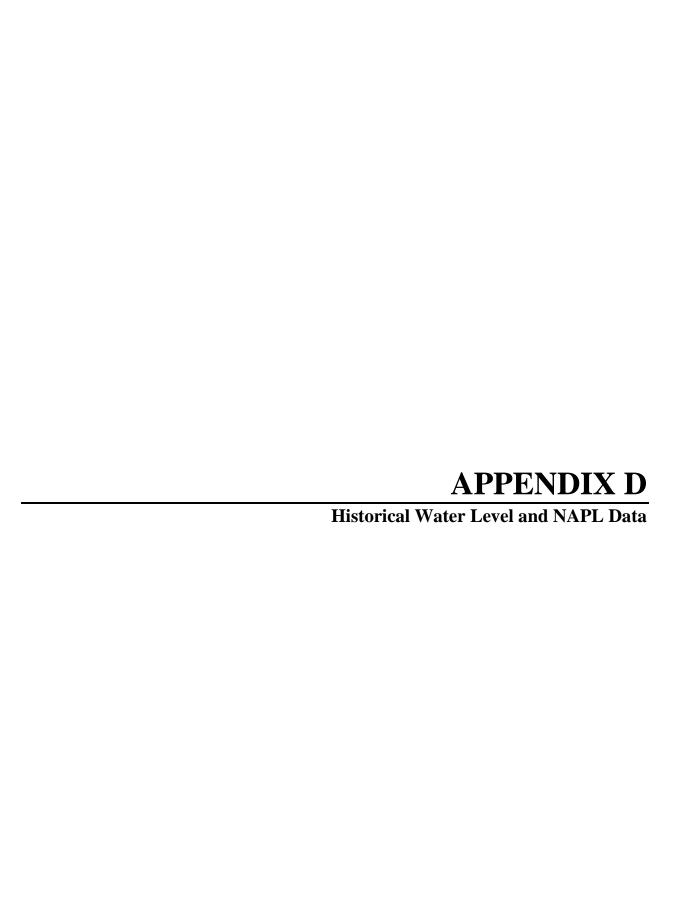


Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| | Casing | | Depth to | Depth to | Groundwater | Total Depth |
|---------|-----------------------------|------------|------------|-----------|-------------|-------------|
| Well ID | Elevation (ft) ¹ | Date | Water (ft) | NAPL (ft) | Elevation | (ft) |
| | | | | | | |
| RW-1 | 349.53 | 9/29/2006 | 13.85 | | 335.68 | 29.00 |
| | | 12/18/2006 | 7.80 | | 341.73 | 29.00 |
| | | 3/19/2007 | 1.55 | 28.34 | 347.98 | 29.00 |
| | | 10/8/2008 | 3.80 | | 345.73 | |
| | | 5/22/2009 | NM | NM | NM | NM |
| | | 11/2/2009 | 0.40 | | 349.13 | 28.50 |
| | | 4/28/2010 | 0.70 | | 348.83 | 28.90 |
| | | 10/4/2010 | 7.62 | | 341.91 | 28.90 |
| | | 4/4/2011 | 7.20 | | 342.33 | 28.95 |
| | | 10/10/2011 | 7.73 | | 341.80 | 28.93 |
| | | 4/9/2012 | 0.40 | | 349.13 | 28.97 |
| | | 10/15/2012 | 8.55 | | 340.98 | 29.00 |
| | | 4/29/2013 | 0.85 | | 348.68 | 29.05 |
| | | 9/30/2013 | 7.23 | Obs. NAPL | 342.30 | 28.92 |
| | | 4/21/2014 | 0.26 | 0.01 | 349.27 | 28.30 |
| | | 10/6/2014 | 4.20 | | 345.33 | 29.00 |
| | | 4/13/2015 | 1.11 | 1.10 | 348.42 | 29.05 |
| | | 11/10/2015 | 5.01 | | 344.52 | 29.11 |
| | | 4/4/2016 | 0.15 | 28.85 | 349.38 | 28.95 |
| | | 10/24/2016 | 4.38 | Obs. NAPL | 345.15 | 28.95 |
| | | 4/24/2017 | NM | NM | NM | NM |
| | 347.45 | 10/23/2017 | 5.31 | Obs. NAPL | 342.14 | 28.90 |
| | | 4/23/2018 | 0.06 | Obs. NAPL | 347.39 | 28.95 |
| RW-2 | 349.05 | 9/29/2006 | 13.15 | | 335.90 | 28.70 |
| | | 12/18/2006 | 7.30 | 19.00 | 341.75 | 28.70 |
| | | 3/19/2007 | 2.00 | 19.00 | 347.05 | 28.70 |
| | | 10/10/2008 | 4.28 | | 344.77 | NM |
| | | 5/22/2009 | NM | NM | NM | NM |
| | | 11/2/2009 | NM | NM | NM | NM |
| | | 4/28/2010 | 0.00 | | 349.05 | 28.00 |
| | | 10/4/2010 | 6.75 | | 342.30 | 27.90 |
| | | 4/4/2011 | 3.72 | | 345.33 | 28.62 |
| | | 10/10/2011 | 7.05 | | 342.00 | 28.50 |
| | | 4/9/2012 | 0.20 | | 348.85 | 28.20 |
| | | 10/15/2012 | 8.00 | | 341.05 | 28.20 |
| | | 4/29/2013 | 0.30 | | 348.75 | 28.20 |
| | | 9/30/2013 | 7.03 | | 342.02 | 28.00 |
| | | 4/21/2014 | NM | NM | NM | NM |
| | | 10/6/2014 | 3.73 | | 345.32 | 28.05 |
| | | 11/10/2015 | 4.45 | | 344.60 | 27.94 |
| | | 4/4/2016 | NM | NM | NM | NM |
| | | 10/24/2016 | 3.90 | | 345.15 | 28.68 |
| | | 4/24/2017 | NM | NM | NM | NM |
| | 346.94 | 10/23/2017 | 4.81 | Obs. NAPL | 342.13 | 28.12 |
| | | 4/23/2018 | NM | NM | NM | NM |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| | Casing | | Depth to | Depth to | Groundwater | Total Depth |
|---------|-----------------------------|------------|------------|-----------|-------------|-------------|
| Well ID | Elevation (ft) ¹ | Date | Water (ft) | NAPL (ft) | Elevation | (ft) |
| | | | | | | |
| RW-3 | 348.77 | 9/29/2006 | 12.60 | | 336.17 | 28.80 |
| | | 12/18/2006 | 6.75 | | 342.02 | 28.80 |
| | | 3/19/2007 | 0.81 | 27.98 | 347.96 | 28.80 |
| | | 10/9/2008 | 2.78 | | 345.99 | NM |
| | | 5/22/2009 | NM | NM | NM | NM |
| | | 11/2/2009 | NM | NM | NM | NM |
| | | 4/28/2010 | NM | NM | NM | NM |
| | | 10/4/2010 | 6.60 | | 342.17 | 28.85 |
| | | 4/4/2011 | 3.13 | | 345.64 | 28.85 |
| | | 10/10/2011 | 6.62 | | 342.15 | 28.55 |
| | | 4/9/2012 | NM | NM | NM | NM |
| | | 10/15/2012 | NM | NM | NM | NM |
| | | 4/29/2013 | NM | NM | NM | NM |
| | | 9/30/2013 | 6.50 | | 342.27 | 28.80 |
| | | 4/21/2014 | NM | NM | NM | NM |
| | | 10/6/2014 | 3.17 | | 345.60 | 28.88 |
| | | 11/10/2015 | 3.80 | | 344.97 | 28.89 |
| | | 4/4/2016 | NM | NM | NM | NM |
| | | 10/24/2016 | 3.32 | | 345.45 | 28.80 |
| | 244.20 | 4/24/2017 | NM | NM | NM | NM |
| | 346.39 | 10/23/2017 | 4.24 | | 342.15 | 28.90 |
| | | 4/23/2018 | NM | NM | NM | NM |
| RW-4 | 348.21 | 9/29/2006 | 14.15 | | 334.06 | 28.20 |
| | | 12/18/2006 | 8.40 | | 339.81 | 28.20 |
| | | 3/19/2007 | 3.78 | 28.00 | 344.43 | 28.20 |
| | | 10/9/2008 | 0.03 | | 348.18 | NM |
| | | 5/22/2009 | NM | NM | NM | NM |
| | | 11/2/2009 | NM | NM | NM | NM |
| | | 4/28/2010 | NM | NM | NM | NM |
| | | 10/4/2010 | 9.80 | | 338.41 | 28.40 |
| | | 4/4/2011 | NM | NM | NM | NM |
| | | 10/10/2011 | 10.04 | | 338.17 | 28.75 |
| | | 4/9/2012 | NM | NM | NM | NM |
| | | 10/15/2012 | NM | NM | NM | NM |
| | | 4/29/2013 | NM | NM | NM | NM |
| | | 9/30/2013 | 9.91 | | 338.30 | 28.52 |
| | | 4/21/2014 | NM | NM | NM | NM |
| | | 10/6/2014 | 5.90 | | 342.31 | 28.55 |
| | | 11/10/2015 | NM | NM | NM | NM |
| | | 4/4/2016 | NM | NM | NM | NM |
| | | 10/24/2016 | 5.04 | | 343.17 | 28.54 |
| | | 4/24/2017 | NM | NM | NM | NM |
| | 345.93 | 10/23/2017 | 5.25 | | 340.68 | 28.46 |
| | | 4/23/2018 | NM | NM | NM | NM |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID Elevation (ft)¹ Date Water (ft) NAPL (ft) Elevation (ft) RW-5 347.71 9/29/2006 13.68 334.03 33.30 3/19/2007 2.00 32.95 345.71 33.30 10/11/2009 NM NM NM 5/22/2009 NM NM NM NM 11/2/2009 NM NM NM NM 4/28/2010 NM NM NM NM 10/4/2011 8.64 339.07 33.40 4/4/2011 NM NM NM NM 10/10/2011 9.03 338.68 33.55 4/9/2012 NM NM NM NM NM 10/10/2011 9.03 338.68 33.55 4/9/2012 NM NM NM NM NM 4/29/2013 NM NM NM NM NM NM 10 | | G i.e. | | Double | Donahar | Carrant | Terel Dend |
|--|---------|-----------------|------------|------------|-----------|-----------|-------------|
| RW-5 347.71 9/29/2006 13.68 334.03 33.30 33.30 3/19/2007 2.00 32.95 345.71 33.30 10/11/2009 NM | W.11 ID | _ | Б., | - | _ | | Total Depth |
| 12/18/2006 | Well ID | Elevation (II). | Date | water (It) | NAPL (II) | Elevation | (11) |
| 12/18/2006 | | | | | | | |
| 3/19/2007 2.00 32.95 345.71 33.30 10/11/2009 NM | RW-5 | 347.71 | | | | | |
| 10/11/2009 NM | | | | | | | |
| 5/22/2009 NM NM NM NM NM NM NM N | | | | | | | |
| 11/2/2009 | | | | | | | |
| A/28/2010 | | | | | | | |
| 10/4/2010 | | | | | | | |
| A/4/2011 | | | | | | | |
| 10/10/2011 9.03 338.68 33.55 | | | | | | | |
| A/9/2012 NM NM NM NM NM NM NM N | | | | | | | |
| 10/15/2012 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 1/10/10/2008 5.59 343.80 343.80 343.80 343.80 343.80 343.80 343.80 343.80 343.80 343.80 343.80 343.80 343.80 344.80 342.70 349.20 349.20 349.20 349.40 342.70 349.20 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 3/19/2007 3.20 28.32 346.19 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 343.80 342.70 28.72 10/10/2011 9.90 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | | | | | |
| A/21/2014 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 343.80 342.70 28.72 10/10/2010 9.50 339.89 28.90 4/4/2010 9.50 339.89 28.90 4/4/2010 9.50 339.89 28.90 4/4/2010 9.50 339.89 28.70 4/9/2012 2.87 339.49 28.72 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 343.80 3 | | | | | | | |
| 4/4/2016 NM NM NM NM NM 10/24/2016 4.03 343.68 33.44 4/24/2017 NM NM NM NM NM 345.41 10/23/2017 6.03 339.38 33.41 4/23/2018 NM NM NM NM NM RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 5/22/2009 NM NM NM NM 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<> | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.70 10/10/2011 9.90 339.89 28.70 28.72 4/9/2012 2.87 339.49 28.75 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.70 10/10/2011 9.90 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 344.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 5/22/2009 NM NM NM NM NM 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | | | | | |
| RW-6 349.39 9/29/2006 15.28 334.11 29.00 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 5/22/2009 NM NM NM NM 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | 345.41 | | | | | |
| 12/18/2006 9.50 339.89 29.00 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 5/22/2009 NM NM NM NM 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 4/23/2018 | NM | NM | NM | NM |
| 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 5/22/2009 NM NM NM NM 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | RW-6 | 349.39 | 9/29/2006 | 15.28 | | 334.11 | 29.00 |
| 3/19/2007 3.20 28.32 346.19 29.00 10/10/2008 5.59 343.80 5/22/2009 NM NM NM NM 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 12/18/2006 | 9.50 | | 339.89 | 29.00 |
| 5/22/2009 NM NM NM NM 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | | | 28.32 | | |
| 11/2/2009 2.56 346.83 28.82 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 10/10/2008 | 5.59 | | 343.80 | |
| 4/28/2010 1.50 347.89 28.74 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 5/22/2009 | NM | NM | NM | NM |
| 10/4/2010 9.50 339.89 28.90 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 11/2/2009 | 2.56 | | 346.83 | 28.82 |
| 4/4/2011 6.69 342.70 28.72 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 4/28/2010 | 1.50 | | 347.89 | 28.74 |
| 10/10/2011 9.90 339.49 28.72 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 10/4/2010 | 9.50 | | 339.89 | 28.90 |
| 4/9/2012 2.87 346.52 28.67 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 4/4/2011 | 6.69 | | 342.70 | 28.72 |
| 10/15/2012 10.70 338.69 28.67 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 10/10/2011 | 9.90 | | 339.49 | 28.72 |
| 4/29/2013 2.75 346.64 28.65 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 4/9/2012 | 2.87 | | 346.52 | 28.67 |
| 9/30/2013 9.79 Obs. NAPL 339.60 28.75 | | | 10/15/2012 | 10.70 | | 338.69 | 28.67 |
| | | | 4/29/2013 | 2.75 | | 346.64 | 28.65 |
| 4/21/2014 2.25 Obs. NAPL 347.14 NM | | | 9/30/2013 | 9.79 | Obs. NAPL | 339.60 | 28.75 |
| | | | 4/21/2014 | 2.25 | Obs. NAPL | 347.14 | NM |
| 10/6/2014 6.30 343.09 28.70 | | | 10/6/2014 | 6.30 | | 343.09 | 28.70 |
| 4/13/2015 3.50 345.89 28.70 | | | 4/13/2015 | 3.50 | | 345.89 | 28.70 |
| 11/10/2015 6.99 342.40 28.94 | | | 11/10/2015 | 6.99 | | 342.40 | 28.94 |
| 4/4/2016 1.23 348.16 28.90 | | | 4/4/2016 | 1.23 | | 348.16 | 28.90 |
| | | | | | | | 28.89 |
| 4/24/2017 NM NM NM NM | | | | | NM | | |
| 347.17 10/23/2017 7.41 Obs. NAPL 339.76 28.88 | | 347 17 | | - | | | |
| 4/23/2018 NM NM NM NM | | 547.17 | | | | | |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| | Casing | | Depth to | Depth to | Groundwater | Total Depth |
|---------|-----------------------------|-------------------------|--------------|-------------|------------------|----------------|
| Well ID | Elevation (ft) ¹ | Date | Water (ft) | NAPL (ft) | Elevation | (ft) |
| WCH ID | Elevation (It) | Date | water (it) | IVAI L (It) | Lievation | (11) |
| DW 7 | 210 76 | 9/29/2006 | 2.56 | | 346.20 | 20 00 |
| RW-7 | 348.76 | 12/18/2006 | 2.56 8.70 | | 340.20 | 28.80 28.80 |
| | | 3/19/2007 | 1.40 | 25.68 | 340.06 | 28.80 |
| | | 10/8/2008 | 3.87 | 23.08 | 347.30 | 20.00 |
| | | 5/22/2009 | NM | | NM | NM |
| | | 11/2/2009 | 0.10 | | 348.66 | 27.45 |
| | | 4/28/2010 | 0.10 | | 348.15 | 26.91 |
| | | 10/4/2010 | 7.38 | | 341.38 | 26.80 |
| | | 4/4/2011 | 4.30 | | 344.46 | 26.70 |
| | | 10/10/2011 | 7.40 | | 341.36 | 26.79 |
| | | 4/9/2012 | 0.40 | | 348.36 | 26.93 |
| | | 10/15/2012 | 9.00 | | 339.76 | 26.90 |
| | | 4/29/2013 | 0.60 | | 348.16 | 26.90 |
| | | 9/30/2013 | 7.38 | | 341.38 | 26.70 |
| | | 4/21/2014 | 0.00 | | 348.76 | 26.80 |
| | | 10/6/2014 | 4.10 | | 344.66 | 26.75 |
| | | 4/13/2015 | 0.68 | | 348.08 | 26.91 |
| | | 11/10/2015 | 4.82 | | 343.94 | 27.76 |
| | | 4/4/2016 | NM | NM | NM | NM |
| | | 10/24/2016 | 4.18 | Obs. NAPL | 344.58 | 26.77 |
| | | 4/24/2017 | NM | NM | NM | NM |
| | 347.22 | 10/23/2017 | 5.02 | Obs. NAPL | 342.20 | 26.63 |
| | | 4/23/2018 | NM | NM | NM | NM |
| RW-8 | 349.40 | 9/29/2006 | 18.15 | | 331.25 | 28.80 |
| | | 12/18/2006 | 8.60 | | 340.80 | 28.80 |
| | | 3/19/2007 | 1.30 | 28.11 | 348.10 | 28.80 |
| | | 10/8/2008 | 3.80 | | 345.60 | |
| | | 5/22/2009 | NM | NM | NM | NM |
| | | 11/2/2009 | 0.00 | | 349.40 | 28.85 |
| | | 4/28/2010 | 0.46 | | 348.94 | 28.38 |
| | | 10/4/2010 | 7.38 | | 342.02 | 28.25 |
| | | 4/4/2011 | 4.25 | | 345.15 | 28.32 |
| | | 10/10/2011 | 7.42 | | 341.98 | 28.30 |
| | | 4/9/2012 | 0.50 | | 348.90 | 28.37 |
| | | 10/15/2012 | 8.90 | | 340.50 | 28.40 |
| | | 4/29/2013 | 0.85 | OL NADI | 348.55 | 28.45 |
| | | 9/30/2013 | 7.32 | Obs. NAPL | 342.08 | 28.20 |
| | | 4/21/2014 | 0.00 4.05 | | 349.40 345.35 | 28.30 |
| | | 10/6/2014 11/10/2015 | 4.05 4.86 | | 345.35 344.54 | 28.50 |
| | | | 4.86 NM | NM | | 28.43 NM |
| | | 4/4/2016 10/24/2016 | 4.10 | Obs. NAPL | NM 345.30 | NM 28.42 |
| | | 4/24/2017 | 4.10 NM | NM | 343.30 NM | 26.42 NM |
| | 347.13 | 10/23/2017 | 5.01 | Obs. NAPL | 342.12 | 28.33 |
| | 547.13 | 4/23/2017 | NM | NM | NM | NM |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|-----------|---------------------------------------|------------------------|------------------------|-----------------------|--------------------------|------------------|
|) W 1 4 G | 261.40 | 0 /00 /000 6 | 0.70 | | 252.50 | 10.50 |
| MW-1S | 361.49 | 9/29/2006 | 8.70 | | 352.79 | 19.50 |
| | | 12/18/2006 | 5.06 | | 356.43 | 19.50 |
| | | 3/19/2007 | 6.36 | | 355.13 | 19.50 |
| | | 10/1/2008 | 4.85 | | 356.64 | 19.17 |
| | | 5/18/2009 | 4.45 | | 357.04 | 19.15 19.19 |
| | | 11/2/2009 4/28/2010 | 4.59 5.21 | | 356.90 356.28 | 19.19 |
| | | 10/4/2010 | 12.97 | | 348.52 | 19.13 |
| | | 4/4/2010 | 4.93 | | 346.52 356.56 | 19.12 |
| | | 10/10/2011 | 13.27 | | 348.22 | 19.14 |
| | | 4/9/2012 | 5.30 | | 356.19 | 19.17 |
| | | 10/15/2012 | 8.23 | | 353.26 | 19.17 |
| | | 4/29/2013 | 4.85 | | 356.64 | 19.10 |
| | | 9/30/2013 | 11.05 | | 350.44 | 19.20 |
| | | 4/21/2014 | 5.17 | | 356.32 | 19.19 |
| | | 10/6/2014 | 7.56 | | 353.93 | 19.16 |
| | | 4/13/2015 | 5.49 | | 356.00 | 19.18 |
| | | 11/10/2015 | 5.94 | NM | 355.55 | 19.14 |
| | | 4/4/2016 | 5.05 | | 356.44 | 19.16 |
| | | 10/24/2016 | 9.10 | | 352.39 | 19.16 |
| | | 4/24/2017 | 4.39 | | 357.10 | 19.17 |
| | 359.13 | 10/23/2017 | 10.56 | | 348.57 | 19.15 |
| | | 4/23/2018 | 4.75 | NM | 354.38 | 19.15 |
| MW-1D | 361.06 | 9/29/2006 | 7.84 | | 353.22 | 44.30 |
| | | 12/18/2006 | 4.27 | | 356.79 | 44.30 |
| | | 3/19/2007 | 5.35 | | 355.71 | 44.30 |
| | | 9/30/2008 | 5.65 | | 355.41 | 44.00 |
| | | 5/18/2009 | 3.36 | | 357.70 | 43.96 |
| | | 11/2/2009 | 3.49 | | 357.57 | 44.05 |
| | | 4/28/2010 | 4.19 | | 356.87 | 44.00 |
| | | 10/4/2010 | 12.33 | | 348.73 | 43.95 |
| | | 4/4/2011 | 4.37 | | 356.69 | 44.00 |
| | | 10/10/2011 | 12.69 | | 348.37 | 44.15 |
| | | 4/9/2012 | 4.48 | | 356.58 | 44.05 |
| | | 10/15/2012 | 7.52 | | 353.54 | 44.02 |
| | | 4/29/2013 | 4.25 | | 356.81 | 43.90 |
| | | 9/30/2013 | 10.71 | | 350.35 | 44.00 |
| | | 4/21/2014 | 4.17 | | 356.89 | 44.05 |
| | | 10/6/2014 | 7.13 | | 353.93 | 44.00 |
| | | 4/13/2015 | 4.54 | | 356.52 | 43.99 |
| | | 11/10/2015 | 5.65 | NM | 355.41 | 43.96 |
| | | 4/4/2016 | 4.20 | | 356.86 | 43.96 |
| | | 10/24/2016 | 8.56 | | 352.50 | 44.00 |
| | 0.50 | 4/24/2017 | 3.65 | | 357.41 | 44.00 |
| | 358.66 | 10/23/2017 | 9.92 | | 348.74 | 43.98 |
| | | 4/23/2018 | 3.89 | NM | 354.77 | 44.00 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|----------|---------------------------------------|-----------------------|------------------------|------------------------|--------------------------|------------------|
| MW-3S | 353.43 | 9/29/2006 | 16.55 | | 336.88 | 24.30 |
| W W - 33 | 333.43 | 12/18/2006 | 13.90 | | 339.53 | 24.30 |
| | | 3/19/2007 | 8.01 | | 345.42 | 24.30 |
| | | 10/22/2008 | 10.45 | | 342.98 | 24.30 |
| | | 5/20/2009 | 5.38 | | 348.05 | 24.09 |
| | | 11/2/2009 | 7.82 | | 345.61 | 24.12 |
| | | 4/28/2010 | 5.90 | | 347.53 | 24.10 |
| | | 10/4/2010 | 15.25 | | 338.18 | 24.05 |
| | | 4/4/2011 | 11.23 | | 342.20 | 24.09 |
| | | 10/10/2011 | 15.64 | | 337.79 | 24.10 |
| | | 4/9/2012 | 7.73 | | 345.70 | 24.12 |
| | | 10/15/2012 | 15.70 | | 337.73 | 24.12 |
| | | 4/29/2013 | 8.50 | | 344.93 | 24.15 |
| | | 9/30/2013 | 15.54 | | 337.89 | 24.11 |
| | | 4/21/2014 | 7.35 | | 346.08 | 24.11 |
| | | 10/6/2014 | 11.67 | | 341.76 | 24.09 |
| | | 4/13/2015 | 5.66 | | 347.77 | 24.15 |
| | | 11/9/2015 | 12.14 | NM | 341.29 | 24.10 |
| | | 4/4/2016 | 6.03 | | 347.40 | 24.10 |
| | | 10/24/2016 | 12.35 | | 341.08 | 24.10 |
| | | 4/24/2017 | 5.75 | | 347.68 | 24.11 |
| | 351.03 | 10/23/2017 | 12.81 | | 338.22 | 24.10 |
| | | 4/23/2018 | 6.38 | | 344.65 | 24.11 |
| MW-3D | 352.83 | 9/29/2006 | 19.50 | | 333.33 | 38.75 |
| | | 12/18/2006 | 12.37 | 38.10 | 340.46 | 38.75 |
| | | 3/19/2007 | 5.70 | | 347.13 | 38.75 |
| | | 10/22/2008 | 8.11 | | 344.72 | |
| | | 5/20/2009 | 3.50 | | 349.33 | 38.53 |
| | | 11/2/2009 | 4.82 | | 348.01 | 38.94 |
| | | 4/28/2010 | 4.35 | | 348.48 | 38.57 |
| | | 10/4/2010 | 12.00 | | 340.83 | 38.53 |
| | | 4/4/2011 | 8.70 | 38.05 | 344.13 | 38.55 |
| | | 10/10/2011 | 12.18 | | 340.65 | 38.61 |
| | | 4/9/2012 | 5.15 | | 347.68 | 38.59 |
| | | 10/15/2012 | 13.19 | | 339.64 | 38.55 |
| | | 4/29/2013 | 5.40 | | 347.43 | 38.55 |
| | | 9/30/2013 | 12.18 | 12.19/37.95 | 340.65 | 38.60 |
| | | 4/21/2014 | 4.55 | 38.00 | 348.28 | 38.55 |
| | | 10/6/2014 | 8.72 | 38.11 | 344.11 | 38.68 |
| | | 4/13/2015 | 3.84 | 38.40 | 348.99 | 38.60 |
| | | 11/9/2015 4/4/2016 | 9.41 4.05 | Obs. NAPL Obs. NAPL | 343.42 348.78 | 38.53 38.49 |
| | | 10/24/2016 | 4.05 8.98 | 38.50 | | |
| | | 4/24/2016 | 8.98 3.70 | Obs. NAPL | 343.85 349.13 | 38.55 38.55 |
| | 350.43 | 10/23/2017 | 9.75 | 38.55 | 349.13 | 38.65 |
| | 330.43 | 4/23/2017 | 4.14 | Obs. NAPL | 346.29 | 38.55 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------|------------------------|-----------------------|--------------------------|------------------|
| | | | | | | |
| MW-5S | 344.34 | 9/29/2006 | 10.40 | | 333.94 | 20.50 |
| | | 12/18/2006 | 8.25 | | 336.09 | 20.50 |
| | | 3/19/2007 | 5.60 | | 338.74 | 20.50 |
| | | 9/25/2008 | 7.84 | | 336.50 | 20.50 |
| | | 5/26/2009 | 3.61 | | 340.73 | 20.49 |
| | | 11/2/2009 | 6.52 | | 337.82 | 20.60 |
| | | 4/28/2010 | 4.16 | | 340.18 | 20.52 |
| | | 10/4/2010 | 10.70 | | 333.64 | 20.45 |
| | | 4/4/2011 | 7.79 | | 336.55 | 20.50 |
| | | 10/10/2011 | 11.78 | | 332.56 | 20.51 |
| | | 4/9/2012 | 5.55 | | 338.79 | 20.52 |
| | | 10/15/2012 | 11.63 | | 332.71 | 20.50 |
| | | 4/29/2013 | 6.20 | | 338.14 | 20.50 |
| | | 9/30/2013 | 12.34 | | 332.00 | 20.50 |
| | | 4/21/2014 | 5.53 | | 338.81 | 20.52 |
| | | 10/6/2014 | 8.88 | | 335.46 | 20.50 |
| | | 4/13/2015 | 3.45 | | 340.89 | 20.45 |
| | | 11/10/2015 | 9.24 | NM | 335.10 | 20.48 |
| | | 4/4/2016 | 4.01 | | 340.33 | 20.50 |
| | | 10/24/2016 | 9.22 | | 335.12 | 20.03 |
| | | 4/24/2017 | 4.28 | | 340.06 | 21.29 |
| | 341.95 | 10/23/2017 | 9.80 | | 332.15 | 20.62 |
| | | 4/23/2018 | 4.62 | | 337.33 | 20.50 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------|------------------------|-----------------------|--------------------------|---------------------|
| | | | | | | |
| MW-8S | 349.60 | 9/29/2006 | 13.76 | | 335.84 | 22.35 |
| | | 12/18/2006 | 10.61 | | 338.99 | 22.35 |
| | | 3/19/2007 | 7.20 | | 342.40 | 22.35 |
| | | 9/26/2008 | 9.55 | | 340.05 | 22.35 |
| | | 5/20/2009 | 4.41 | | 345.19 | 22.40 |
| | | 11/2/2009 | 7.28 | | 342.32 | 22.39 |
| | | 4/28/2010 | 5.13 | | 344.47 | 22.35 |
| | | 10/4/2010 | 12.96 | | 336.64 | 22.37 |
| | | 4/4/2011 | 9.73 | | 339.87 | 22.37 |
| | | 10/10/2011 | 13.87 | | 335.73 | 22.16 |
| | | 4/9/2012 | 6.70 | | 342.90 | 22.42 |
| | | 10/15/2012 | 13.72 | | 335.88 | 22.39 |
| | | 4/29/2013 | 8.90 | | 340.70 | 22.39 |
| | | 9/30/2013 | 13.99 | | 335.61 | 22.39 |
| | | 4/21/2014 | 6.10 | | 343.50 | 22.42 |
| | | 10/6/2014 | 10.18 | | 339.42 | 22.39 |
| | | 4/13/2015 | 4.47 | | 345.13 | 22.39 |
| | | 11/10/2015 | 10.37 | NM | 339.23 | 22.35 |
| | | 4/4/2016 | 4.87 | | 344.73 | 22.38 |
| | | 10/24/2016 | 10.50 | | 339.10 | 22.38 |
| | 247.22 | 4/24/2017 | 4.72 | | 344.88 | 22.40 |
| | 347.22 | 10/23/2017 | 11.07 | | 336.15 | 22.40 |
| | | 4/23/2018 | 5.31 | | 341.91 | 22.42 |
| MW-8D | 350.87 | 9/29/2006 | 15.15 | | 335.72 | 44.40 |
| | | 12/18/2006 | 12.14 | | 338.73 | 44.40 |
| | | 3/19/2007 | 8.80 | | 342.07 | 44.40 |
| | | 9/26/2008 | 11.12 | | 339.75 | 44.40 |
| | | 5/21/2009 | 6.00 | | 344.87 | 44.39 |
| | | 11/2/2009 | 9.03 | | 341.84 | 44.34 |
| | | 4/28/2010 | 6.56 | | 344.31 | 44.40 |
| | | 10/4/2010 | 14.32 | | 336.55 | 44.40 |
| | | 4/4/2011 | 11.22 | | 339.65 | 44.32 |
| | | 10/10/2011 | 15.22 | | 335.65 | 44.22 |
| | | 4/9/2012 | 8.25 | | 342.62 | 44.28 |
| | | 10/15/2012 | 15.08 | | 335.79 | 44.32 |
| | | 4/29/2013 | 7.30 | | 343.57 | 44.32 |
| | | 9/30/2013 | 15.32 | | 335.55 | 44.37 |
| | | 4/21/2014 | 7.70 | | 343.17 | 44.38 |
| | | 10/6/2014 | 11.52 | | 339.35 | 44.32 |
| | | 4/13/2015 | 5.86 | | 345.01 | 44.32 |
| | | 11/10/2015 | 11.79 | NM | 339.08 | 44.32 |
| | | 4/4/2016 | 6.30 | | 344.57 | 44.32 |
| | | 10/24/2016 | 11.80 | | 339.07 | 44.30 |
| | | 4/24/2017 | 6.32 | | 344.55 | 44.37 |
| | 348.48 | 10/23/2017 | 12.32 | | 336.16 | 44.25 |
| | | 4/23/2018 | 6.76 | | 341.72 | 44.28 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------------------|------------------------|-----------------------|--------------------------|------------------|
| MW-9S | 350.21 | 9/29/2006 | 17.19 | | 333.02 | 20.30 |
| W W-93 | 330.21 | 12/18/2006 | 17.19 | | 338.21 | 20.30 |
| | | 3/19/2007 | 6.75 | | 343.46 | 20.30 |
| | | 10/14/2008 | 9.75 | | 340.46 | 20.45 |
| | | 5/26/2009 | 3.30 | | 346.91 | 19.60 |
| | | 11/2/2009 | 6.22 | | 343.99 | 19.15 |
| | | 4/28/2010 | 4.26 | 4.25 | 345.95 | 19.44 |
| | | 10/4/2010 | 14.41 | | 335.80 | 19.80 |
| | | 4/4/2011 | 9.88 | | 340.33 | 19.37 |
| | | 10/10/2011 | 15.05 | | 335.16 | 19.39 |
| | | 4/9/2012 | 7.01 | | 343.20 | 19.50 |
| | | 10/15/2012 | 14.56 | | 335.65 | 19.59 |
| | | 4/29/2013 | 7.45 | | 342.76 | 19.60 |
| | | 9/30/2013 | 14.90 | | 335.31 | 19.65 |
| | | 4/21/2014 | 6.64 | | 343.57 | 19.86 |
| | | 10/6/2014 | 11.43 | | 338.78 | 20.30 |
| | | 4/13/2015 | 4.32 | | 345.89 | 20.02 |
| | | 11/10/2015 | 11.74 | NM | 338.47 | 19.94 |
| | | 4/4/2016 | 4.86 | | 345.35 | 18.99 |
| | | 10/24/2016 | 12.96 | | 337.25 | 18.65 |
| | | 4/24/2017 | 4.63 | | 345.58 | 20.36 |
| | 348.52 | 10/23/2017 | 12.53 | | 335.99 | 20.30 |
| | | 4/23/2018 | 5.32 | | 343.20 | 20.36 |
| MW-9D | 350.85 | 9/29/2006 | 17.28 | | 333.57 | 42.90 |
| | | 12/18/2006 | 11.55 | | 339.30 | 42.90 |
| | | 3/19/2007 | 5.45 | | 345.40 | 42.90 |
| | | 10/14/2008 | 7.85 | | 343.00 | 42.90 |
| | | 5/22/2009 | 3.00 | | 347.85 | 42.89 |
| | | 11/2/2009 | 4.70 | | 346.15 | 42.90 |
| | | 4/28/2010 | 3.62 | 3.61 | 347.23 | 43.15 |
| | | 10/4/2010 | 11.73 | | 339.12 | 42.82 |
| | | 4/4/2011 | 8.22 | | 342.63 | 42.88 |
| | | 10/10/2011 | 11.97 | | 338.88 | 42.90 |
| | | 4/9/2012 | 4.92 | | 345.93 | 42.92 |
| | | 10/15/2012 | 12.61 | | 338.24 | 42.87 |
| | | 4/29/2013 | 5.20 | | 345.65 | 42.85 |
| | | 9/30/2013 | 11.93 | | 338.92 | 43.00 |
| | | 4/21/2014 | 4.36 | | 346.49 | 42.91 |
| | | 10/6/2014 | 8.35 | | 342.50 | 42.88 |
| | | 4/13/2015 | 3.19 | NIM | 347.66 | 42.89 |
| | | 11/10/2015 | 8.95 | NM | 341.90 | 42.82 42.90 |
| | | 4/4/2016 10/24/2016 | 3.52 | | 347.33 | 42.90 42.90 |
| | | 4/24/2016 | 8.68 3.38 | | 342.17 347.47 | 42.90 42.90 |
| | 349.18 | 10/23/2017 | 9.40 | | 347.47 | 42.90 |
| | 349.10 | 4/23/2017 | 3.75 | | 345.43 | 42.84 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|-------------------------|------------------------|-----------------------|--------------------------|------------------|
| MW 100 | 245 20 | 0/20/2006 | 0.24 | | 226.15 | 20.40 |
| MW-10S | 345.39 | 9/29/2006 12/18/2006 | 9.24 7.25 | | 336.15 338.14 | 20.40 20.40 |
| | | 3/19/2007 | 3.95 | | 341.44 | 20.40 |
| | | 10/6/2008 | 6.22 | | 339.17 | 20.40 |
| | | 5/21/2009 | 0.22 | | 344.69 | 20.36 |
| | | 11/2/2009 | 4.54 | | 340.85 | 20.50 |
| | | 4/28/2010 | 0.97 | | 344.42 | 20.47 |
| | | 10/4/2010 | 9.02 | | 336.37 | 20.48 |
| | | 4/4/2011 | 6.39 | | 339.00 | 20.38 |
| | | 10/10/2011 | 10.00 | | 335.39 | 20.38 |
| | | 4/9/2012 | 3.55 | | 341.84 | 20.39 |
| | | 10/15/2012 | 9.80 | | 335.59 | 20.37 |
| | | 4/29/2013 | 4.25 | | 341.14 | 20.37 |
| | | 9/30/2013 | 10.09 | | 335.30 | 20.40 |
| | | 4/21/2014 | 3.04 | | 342.35 | 20.39 |
| | | 10/6/2014 | 6.28 | | 339.11 | 20.35 |
| | | 4/13/2015 | 0.43 | | 344.96 | 20.49 |
| | | 11/10/2015 | 6.67 | | 338.72 | 20.34 |
| | | 4/4/2016 | 1.06 | | 344.33 | 20.37 |
| | | 10/24/2016 | 6.49 | | 338.90 | 20.36 |
| | | 4/24/2017 | 1.15 | | 344.24 | 20.36 |
| | 343.02 | 10/23/2017 | 7.01 | | 336.01 | 20.35 |
| | | 4/23/2018 | 1.70 | | 341.32 | 20.36 |
| MW-10D | 345.97 | 9/29/2006 | 10.31 | | 335.66 | 37.45 |
| | | 12/18/2006 | 7.80 | | 338.17 | 37.45 |
| | | 3/19/2007 | 4.40 | | 341.57 | 37.45 |
| | | 10/6/2008 | 6.64 | | 339.33 | 37.40 |
| | | 5/21/2009 | 1.02 | | 344.95 | 37.40 |
| | | 11/2/2009 | 4.93 | | 341.04 | 37.43 |
| | | 4/28/2010 | 1.37 | | 344.60 | 37.35 |
| | | 10/4/2010 | 9.50 | | 336.47 | 37.37 |
| | | 4/4/2011 | 6.86 | | 339.11 | 37.32 |
| | | 10/10/2011 | 10.46 | | 335.51 | 37.36 |
| | | 4/9/2012 | 4.03 | | 341.94 | 37.36 |
| | | 10/15/2012 | 10.32 | | 335.65 | 37.33 |
| | | 4/29/2013 | 4.70 | | 341.27 | 37.33 |
| | | 9/30/2013 | 10.53 | | 335.44 | 37.34 |
| | | 4/21/2014 | 3.51 | | 342.46 | 37.38 |
| | | 10/6/2014 | 6.71 | | 339.26 | 37.35 |
| | | 4/13/2015 | 0.81 | | 345.16 | 37.34 |
| | | 11/10/2015 | 7.15 | | 338.82 | 37.29 |
| | | 4/4/2016 | 1.46 | | 344.51 | 37.35 |
| | | 10/24/2016 | 6.91 | | 339.06 | 37.32 |
| | 246.55 | 4/24/2017 | 1.54 | | 344.43 | 37.37 |
| | 343.57 | 10/23/2017 | 7.39 | | 336.18 | 37.34 |
| | | 4/23/2018 | 2.11 | | 341.46 | 37.36 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------|------------------------|-----------------------|--------------------------|------------------|
| | | | | | | |
| MW-12S | 353.32 | 9/29/2006 | 2.10 | | 351.22 | 21.00 |
| | | 12/18/2006 | 0.00 | | 353.32 | 21.00 |
| | | 3/19/2007 | -0.30 | | 353.62 | 21.00 |
| | | 10/22/2008 | NM | NM | NM | NM |
| | | 5/21/2009 | NM | NM | NM | NM |
| | | 11/2/2009 | 0.00 | | 353.32 | 19.19 |
| | | 4/28/2010 | NM | NM | NM | NM |
| | | 10/4/2010 | 5.70 | | 347.62 | 21.05 |
| | | 4/4/2011 | NM | NM | NM | NM |
| | | 10/10/2011 | 6.45 | | 346.87 | 21.00 |
| | | 4/9/2012 | NM | NM | NM | NM |
| | | 10/15/2012 | 2.71 | | 350.61 | 21.05 |
| | | 4/29/2013 | NM | NM | NM | NM |
| | | 9/30/2013 | 4.08 | | 349.24 | 20.91 |
| | | 4/21/2014 | NM | NM | NM | NM |
| | | 10/6/2014 | 0.60 | | 352.72 | 20.94 |
| | | 11/10/2015 | 0.57 | NM | 352.75 | 20.97 |
| | | 4/4/2016 | -0.21 | | 353.53 | 21.06 |
| | | 10/24/2016 | 2.72 | | 350.60 | NM |
| | | 4/24/2017 | Above TOC | | | NM |
| | 354.92 | 10/23/2017 | 7.83 | | 347.09 | 24.89 |
| | | 4/23/2018 | 2.16 | NM | 352.76 | 24.88 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------------------|------------------------|-----------------------|--------------------------|------------------|
| MW-16S | 356.09 | 9/29/2006 | 18.64 | | 337.45 | 30.00 |
| W - 103 | 330.09 | 12/18/2006 | 14.09 | | 342.00 | 30.00 |
| | | 3/19/2007 | 8.40 | | 347.69 | 30.00 |
| | | 9/30/2008 | 11.11 | | 344.98 | 30.45 |
| | | 5/19/2009 | 5.47 | | 350.62 | 30.43 |
| | | 11/2/2009 | 6.91 | | 349.18 | 30.44 |
| | | 4/28/2010 | 7.43 | | 348.66 | 30.45 |
| | | 10/4/2010 | 14.41 | | 341.68 | 30.40 |
| | | 4/4/2011 | 11.97 | | 344.12 | 30.43 |
| | | 10/10/2011 | 14.59 | | 341.50 | 30.43 |
| | | 4/9/2012 | 7.34 | | 348.75 | 30.48 |
| | | 10/15/2012 | 16.60 | | 339.49 | 30.42 |
| | | 4/29/2013 | 7.40 | | 348.69 | 30.45 |
| | | 9/30/2013 | 14.75 | | 341.34 | 30.50 |
| | | 4/21/2014 | 6.27 | | 349.82 | 30.40 |
| | | 10/6/2014 | 11.16 | | 344.93 | 30.41 |
| | | 4/13/2015 | 6.44 | | 349.65 | 30.50 |
| | | 11/10/2015 | 12.15 | | 343.94 | 30.43 |
| | | 4/4/2016 | 6.48 | | 349.61 | 30.44 |
| | | 10/24/2016 | 11.08 | | 345.01 | 30.45 |
| | | 4/24/2017 | 5.53 | | 350.56 | 30.39 |
| | 353.71 | 10/23/2017 | 12.05 | | 341.66 | 30.03 |
| | | 4/23/2018 | 6.41 | | 347.30 | 30.43 |
| MW-16D | 355.69 | 9/29/2006 | 19.60 | | 336.09 | 43.20 |
| | | 12/18/2006 | 15.24 | | 340.45 | 43.20 |
| | | 3/19/2007 | 9.75 | | 345.94 | 43.20 |
| | | 9/30/2008 | 12.16 | | 343.53 | 42.20 |
| | | 5/19/2009 | 6.62 | | 349.07 | 42.20 |
| | | 11/2/2009 | 8.72 | | 346.97 | 42.03 |
| | | 4/28/2010 | 7.93 | | 347.76 | 42.02 |
| | | 10/4/2010 | 15.46 | | 340.23 | 42.18 |
| | | 4/4/2011 | 12.57 | | 343.12 | 42.19 |
| | | 10/10/2011 | 15.81 | | 339.88 | 42.19 |
| | | 4/9/2012 | 8.78 | | 346.91 | 42.19 |
| | | 10/15/2012 | 17.06 | | 338.63 | 42.20 |
| | | 4/29/2013 | 9.05 | | 346.64 | 42.25 |
| | | 9/30/2013 | 15.93 | | 339.76 | 42.10 |
| | | 4/21/2014 | 7.97 | | 347.72 | 42.20 |
| | | 10/6/2014 | 12.26 | | 343.43 | 42.00 |
| | | 4/13/2015 | 7.08 | | 348.61 | 42.20 |
| | | 11/10/2015 | 13.02 | | 342.67 | 42.21 |
| | | 4/4/2016 10/24/2016 | 7.36 | | 348.33 | 42.20 |
| | | 4/24/2016 | 12.37 7.01 | | 343.32 348.68 | 42.15 42.14 |
| | 353.32 | 10/23/2017 | 13.20 | | 348.68 | 42.14 |
| | 333.34 | 4/23/2017 | 7.53 | | 340.12 | 42.11 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------|------------------------|-----------------------|--------------------------|------------------|
| | | | | | | |
| MW-17S | 353.65 | 9/29/2006 | 17.48 | | 336.17 | 25.50 |
| | | 12/18/2006 | 8.95 | | 344.70 | 25.50 |
| | | 3/19/2007 | 5.55 | | 348.10 | 25.50 |
| | | 9/25/2008 | 6.70 | | 346.95 | 25.50 |
| | | 5/20/2009 | 3.21 | | 350.44 | 25.50 |
| | | 11/2/2009 | 3.64 | | 350.01 | 25.55 |
| | | 4/28/2010 | 3.70 | | 349.95 | 25.50 |
| | | 10/4/2010 | 10.79 | | 342.86 | 25.45 |
| | | 4/4/2011 | 7.02 | | 346.63 | 25.50 |
| | | 10/10/2011 | 10.90 | | 342.75 | 25.49 |
| | | 4/9/2012 | 3.94 | | 349.71 | 25.51 |
| | | 10/15/2012 | 11.14 | | 342.51 | 25.51 |
| | | 4/29/2013 | 3.95 | | 349.70 | 25.50 |
| | | 9/30/2013 | 10.60 | | 343.05 | 25.50 |
| | | 4/21/2014 | 3.46 | | 350.19 | 25.53 |
| | | 10/6/2014 | 7.27 | 7.26 | 346.38 | 25.50 |
| | | 4/13/2015 | 3.32 | | 350.33 | 25.55 |
| | | 11/9/2015 | 7.77 | NM | 345.88 | 25.51 |
| | | 4/4/2016 | 3.27 | | 350.38 | 25.50 |
| | | 10/24/2016 | 7.53 | | 346.12 | 25.49 |
| | | 4/24/2017 | 2.79 | | 350.86 | 25.51 |
| | 351.27 | 10/23/2017 | 8.56 | | 342.71 | 25.50 |
| | | 4/23/2018 | 3.24 | | 348.03 | 25.50 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|----------|---------------------------------------|-------------------------|------------------------|-----------------------|--------------------------|------------------|
| MW-18S | 352.39 | 9/29/2006 | 14.65 | | 337.74 | 26.55 |
| WI W-105 | 332.39 | 12/18/2006 | 9.53 | | 342.86 | 26.55 |
| | | 3/19/2007 | 5.68 | | 346.71 | 26.55 |
| | | 10/22/2008 | 7.14 | | 345.25 | |
| | | 5/21/2009 | 3.98 | | 348.41 | 26.50 |
| | | 11/2/2009 | 4.32 | | 348.07 | 26.46 |
| | | 4/28/2010 | 3.22 | | 349.17 | 26.47 |
| | | 10/4/2010 | 11.68 | | 340.71 | 26.45 |
| | | 4/4/2011 | 7.07 | | 345.32 | 26.50 |
| | | 10/10/2011 | 12.09 | | 340.30 | 26.49 |
| | | 4/9/2012 | 4.32 | | 348.07 | 26.49 |
| | | 10/15/2012 | 10.85 | | 341.54 | 26.50 |
| | | 4/29/2013 | 4.55 | | 347.84 | 26.50 |
| | | 9/30/2013 | 11.39 | | 341.00 | 26.50 |
| | | 4/21/2014 | 3.91 | 3.92 | 348.48 | 26.53 |
| | | 10/6/2014 | 7.96 | | 344.43 | 26.50 |
| | | 4/13/2015 | 2.94 | | 349.45 | 26.47 |
| | | 11/10/2015 | 8.19 | NM | 344.20 | 26.44 |
| | | 4/4/2016 | 3.14 | | 349.25 | 26.51 |
| | | 10/24/2016 | 8.64 | | 343.75 | 26.47 |
| | 349.88 | 4/24/2017 | 3.10 9.51 | | 349.29 | 26.53 |
| | 349.88 | 10/23/2017 4/23/2018 | 9.51 3.42 | | 340.37 346.46 | 26.50 26.52 |
| | | 4/23/2016 | 3.42 | | 340.40 | 20.32 |
| MW-18D | 352.71 | 9/29/2006 | 17.18 | | 335.53 | 39.60 |
| | | 12/18/2006 | 11.82 | | 340.89 | 39.60 |
| | | 3/19/2007 | 7.47 | | 345.24 | 39.60 |
| | | 10/1/2008 | 9.46 | | 343.25 | 39.60 |
| | | 5/21/2009 | 4.41 | | 348.30 | 39.55 |
| | | 11/2/2009 | 6.61 | | 346.10 | 39.55 |
| | | 4/28/2010 | 4.66 | | 348.05 | 39.51 |
| | | 10/4/2010 | 13.30 | | 339.41 | 39.53 |
| | | 4/4/2011 | 9.67 | | 343.04 339.07 | 39.50 |
| | | 10/10/2011 4/9/2012 | 13.64 6.63 | | | 39.53 39.50 |
| | | 10/15/2012 | 13.76 | | 346.08 338.95 | 39.50 |
| | | 4/29/2013 | 7.25 | | 345.46 | 39.50 |
| | | 9/30/2013 | 13.62 | | 339.09 | 39.50 |
| | | 4/21/2014 | 6.09 | | 346.62 | 39.49 |
| | | 10/6/2014 | 10.06 | | 342.65 | 39.49 |
| | | 4/13/2015 | 4.48 | | 348.23 | 39.45 |
| | | 11/10/2015 | 10.45 | NM | 342.26 | 39.46 |
| | | 4/4/2016 | 4.86 | | 347.85 | 39.48 |
| | | 10/24/2016 | 10.35 | | 342.36 | 39.44 |
| | | 4/24/2017 | 4.56 | | 348.15 | 39.50 |
| | 350.29 | 10/23/2017 | 12.91 | | 337.38 | 39.56 |
| | | 4/23/2018 | 5.21 | | 345.08 | 39.56 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|-------------------------|------------------------|-----------------------|--------------------------|------------------|
| MW-19S | 353.13 | 9/29/2006 | 18.36 | | 334.77 | 26.90 |
| W W-195 | 333.13 | 12/18/2006 | 13.63 | | 339.50 | 26.90 |
| | | 3/19/2007 | 8.20 | | 344.93 | 26.90 |
| | | 9/29/2008 | 10.44 | | 342.69 | 26.86 |
| | | 5/20/2009 | 5.11 | | 348.02 | 26.84 |
| | | 11/2/2009 | 7.76 | | 345.37 | 26.90 |
| | | 4/28/2010 | 6.85 | 6.84 | 346.28 | 26.90 |
| | | 10/4/2010 | 14.10 | | 339.03 | 26.80 |
| | | 4/4/2011 | 11.17 | | 341.96 | 26.86 |
| | | 10/10/2011 | 14.50 | | 338.63 | 26.92 |
| | | 4/9/2012 | 7.65 | | 345.48 | 26.89 |
| | | 10/15/2012 | 15.17 | | 337.96 | 26.85 |
| | | 4/29/2013 | 8.10 | | 345.03 | 26.85 |
| | | 9/30/2013 | 14.60 | | 338.53 | 26.89 |
| | | 4/21/2014 | 7.14 | | 345.99 | 26.91 |
| | | 10/6/2014 | 10.95 | | 342.18 | 26.87 |
| | | 4/13/2015 | 5.41 | | 347.72 | 26.95 |
| | | 11/10/2015 | 11.63 | NM | 341.50 | 26.88 |
| | | 4/4/2016 | 5.92 | | 347.21 | 26.86 |
| | | 10/24/2016 | 11.40 | | 341.73 | 26.88 |
| | | 4/24/2017 | 5.71 | | 347.42 | 26.86 |
| | 350.75 | 10/23/2017 | 12.01 | | 338.74 | 26.88 |
| | | 4/23/2018 | 6.46 | | 344.29 | 26.87 |
| MW-19D | 353.44 | 9/29/2006 | 19.12 | | 334.32 | 40.10 |
| | | 12/18/2006 | 13.27 | | 340.17 | 40.10 |
| | | 3/19/2007 | 7.25 | | 346.19 | 40.10 |
| | | 9/29/2008 | 9.57 | | 343.87 | 40.10 |
| | | 5/20/2009 | 4.69 | | 348.75 | 40.03 |
| | | 11/2/2009 | 6.39 | | 347.05 | 39.98 |
| | | 4/28/2010 | 5.45 | 5.44 | 347.99 | 40.09 |
| | | 10/4/2010 | 13.37 | | 340.07 | 40.00 |
| | | 4/4/2011 | 10.11 | | 343.33 | 40.04 |
| | | 10/10/2011 | 13.62 | | 339.82 | 40.02 |
| | | 4/9/2012 | 6.67 | | 346.77 | 40.05 |
| | | 10/15/2012 | 14.58 | | 338.86 | 40.04 |
| | | 4/29/2013 | 7.10 | | 346.34 | 40.05 |
| | | 9/30/2013 | 13.65 | | 339.79 | 39.99 |
| | | 4/21/2014 | 5.98 | 10.02 | 347.46 | 39.99 |
| | | 10/6/2014 | 10.04 4.96 | 10.03 | 343.40 348.48 | 40.05 40.05 |
| | | 4/13/2015 11/10/2015 | 4.96 10.78 | NM | 348.48 342.66 | 40.03 |
| | | 4/4/2016 | 5.25 | NWI | 342.66 348.19 | |
| | | 10/24/2016 | 10.33 | | 348.19 | 40.08 40.06 |
| | | 4/24/2016 | 5.14 | | 343.11 | 40.08 |
| | 351.05 | 10/23/2017 | 3.14 11.11 | | 348.30 | 39.90 |
| | 331.03 | 4/23/2018 | 5.43 | | 345.62 | 40.04 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|-------------------------|------------------------|-----------------------|--------------------------|------------------|
| MW-20S | 354.67 | 9/29/2006 | 18.55 | | 336.12 | 31.30 |
| W -205 | 334.07 | 12/18/2006 | 14.08 | | 340.59 | 31.30 |
| | | 3/19/2007 | 8.80 | | 345.87 | 31.30 |
| | | 10/22/2008 | 11.15 | | 343.52 | |
| | | 5/18/2009 | 5.54 | | 349.13 | 31.27 |
| | | 11/2/2009 | 7.73 | | 346.94 | 31.31 |
| | | 4/28/2010 | 6.90 | 6.89 | 347.77 | 31.32 |
| | | 10/4/2010 | 14.45 | | 340.22 | 31.30 |
| | | 4/4/2011 | 11.56 | | 343.11 | 31.19 |
| | | 10/10/2011 | 14.83 | | 339.84 | 31.35 |
| | | 4/9/2012 | 7.81 | | 346.86 | 31.35 |
| | | 10/15/2012 | 16.08 | | 338.59 | 31.31 |
| | | 4/29/2013 | 8.15 | | 346.52 | 31.30 |
| | | 9/30/2013 | 15.00 | | 339.67 | 31.35 |
| | | 4/21/2014 | 7.04 | | 347.63 | 31.20 |
| | | 10/6/2014 | 11.35 | | 343.32 | 40.00 |
| | | 4/13/2015 | 6.22 | | 348.45 | 31.21 |
| | | 11/10/2015 | 12.16 | NM | 342.51 | 31.36 |
| | | 4/4/2016 | 6.49 | | 348.18 | 31.32 |
| | | 10/24/2016 | 11.52 | | 343.15 | 31.30 |
| | | 4/24/2017 | 6.16 | | 348.51 | 31.32 |
| | 352.27 | 10/23/2017 | 12.33 | | 339.94 | 31.31 |
| | | 4/23/2018 | 6.74 | | 345.53 | 31.22 |
| MW-20D | 354.83 | 9/29/2006 | 18.71 | | 336.12 | 39.10 |
| | | 12/18/2006 | 14.37 | | 340.46 | 39.10 |
| | | 3/19/2007 | 8.60 | | 346.23 | 39.10 |
| | | 10/22/2008 | 11.30 | | 343.53 | |
| | | 5/18/2009 | 5.70 | | 349.13 | 39.10 |
| | | 11/2/2009 | 7.37 | | 347.46 | 39.10 |
| | | 4/28/2010 | 7.04 | 7.02 | 347.79 | 39.03 |
| | | 10/4/2010 | 14.56 | | 340.27 | 39.15 |
| | | 4/4/2011 | 11.73 | | 343.10 | 39.16 |
| | | 10/10/2011 | 14.66 | | 340.17 | 38.85 |
| | | 4/9/2012 | 7.91 | | 346.92 | 39.16 |
| | | 10/15/2012 | 16.20 | | 338.63 | 39.13 |
| | | 4/29/2013 | 8.20 | | 346.63 | 39.15 |
| | | 9/30/2013 | 15.06 | | 339.77 | 39.50 |
| | | 4/21/2014 | 7.12 | | 347.71 | 38.90 |
| | | 10/6/2014 | 11.37 | | 343.46 | 39.15 |
| | | 4/13/2015 | 6.23 | | 348.60 | 39.23 |
| | | 11/10/2015 | 12.15 | NM | 342.68 | 39.16 |
| | | 4/4/2016 | 6.19 | | 348.64 | 38.87 |
| | | 10/24/2016 | 11.50 | | 343.33 | 39.13 |
| | 252.45 | 4/24/2017 | 6.17 | | 348.66 | 39.19 |
| | 352.45 | 10/23/2017 4/23/2018 | 12.35 6.66 | | 340.10 345.79 | 39.15 39.18 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) | |
|-----------|---------------------------------------|------------------------|------------------------|-----------------------|--------------------------|------------------|--|
| MW-21S | 348.76 | 9/29/2006 | 14.02 | | 334.74 | 27.65 | |
| WI W -215 | 346.70 | 12/18/2006 | 10.85 | | 337.91 | 27.65 | |
| | | 3/19/2007 | 7.65 | | 341.11 | 27.65 | |
| | | 10/15/2008 | 9.83 | | 338.93 | 27.15 | |
| | | 5/22/2009 | 3.88 | | 344.88 | 27.15 | |
| | | 11/2/2009 | 8.05 | | 340.71 | 26.90 | |
| | | 4/28/2010 | 4.01 | | 344.75 | 27.14 | |
| | | 10/4/2010 | 12.93 | | 335.83 | 27.09 | |
| | | 4/4/2011 | 10.17 | | 338.59 | 27.12 | |
| | | 10/10/2011 | 13.79 | | 334.97 | 27.13 | |
| | | 4/9/2012 | 7.33 | | 341.43 | 27.15 | |
| | | 10/15/2012 | 13.51 | | 335.25 | 27.12 | |
| | | 4/29/2013 | 8.10 | | 340.66 | 27.15 | |
| | | 9/30/2013 | 13.78 | | 334.98 | 27.07 | |
| | | 4/21/2014 | 6.80 | | 341.96 | 27.18 | |
| | | 10/6/2014 | 9.81 | | 338.95 | 27.12 | |
| | | 4/13/2015 | 3.56 | | 345.20 | 27.12 | |
| | | 11/10/2015 | 10.19 | NM | 338.57 | 27.10 | |
| | | 4/4/2016 | 4.31 | | 344.45 | 27.11 | |
| | | 10/24/2016 | 10.16 | | 338.60 | 27.09 | |
| | 2.17.0.1 | 4/24/2017 | 4.40 | | 344.36 | 27.17 | |
| | 347.04 | 10/23/2017 | 10.46 | | 336.58 | 27.08 | |
| | | 4/23/2018 | 5.06 | | 341.98 | 27.09 | |
| MW-21D | 348.61 | 9/29/2006 | 13.72 | | 334.89 | 48.90 | |
| | | 12/18/2006 | 11.30 | | 337.31 | 48.90 | |
| | | 3/19/2007 | 6.70 | | 341.91 | 48.90 | |
| | | 10/15/2008 | 8.79 | | 339.82 | 47.23 | |
| | | 5/22/2009 | 3.12 | | 345.49 | 47.07 | |
| | | 11/2/2009 | 6.89 | | 341.72 | 47.01 | |
| | | 4/28/2010 | 3.46 | | 345.15 | 47.18 | |
| | | 10/4/2010 | 12.00 | | 336.61 | 47.05 | |
| | | 4/4/2011 | 9.27 | | 339.34 | 47.07 | |
| | | 10/10/2011 | 12.78 | | 335.83 | 46.97 | |
| | | 4/9/2012 | 6.40 | | 342.21 | 47.05 | |
| | | 10/15/2012 | 12.81 | | 335.80 | 47.03 | |
| | | 4/29/2013 | 7.00 | | 341.61 | 47.05 | |
| | | 9/30/2013 | 12.72 | | 335.89 | 46.97 | |
| | | 4/21/2014 | 5.78 | | 342.83 | 47.06 | |
| | | 10/6/2014 | 8.89 3.11 | | 339.72 345.50 | 47.05 46.95 | |
| | | 4/13/2015 | 3.11 9.62 | NM | 345.50 338.99 | 46.95 46.97 | |
| | | 11/10/2015 4/4/2016 | | INIVI | 338.99 344.73 | 46.97 47.04 | |
| | | 10/24/2016 | 3.88 9.18 | | 339.43 | 47.04 47.01 | |
| | | 4/24/2016 | 9.18 3.95 | | 339.43 344.66 | 47.01 | |
| | 346.95 | 10/23/2017 | 9.74 | | 337.21 | | |
| | 540.75 | 4/23/2017 | 4.56 | | 342.39 | 40.87 46.95 | |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) | | | | |
|---------|---------------------------------------|---|------------------------|-------------------------------------|--------------------------|------------------|-------|---------------|--------|--------|
| | | | | | | | | | | |
| MW-22S | 352.97 | 9/29/2006 | 17.20 | | 335.77 | 27.12 | | | | |
| | | 12/18/2006 | 13.93 | | 339.04 | 27.12 | | | | |
| | | 3/19/2007 9/28/2008 5/19/2009 11/2/2009 4/28/2010 | 9.95 | | 343.02 | 27.12 | | | | |
| | | | 5/19/2009 11/2/2009 | 12.30 | | 340.67 | 27.12 | | | |
| | | | | 11/2/2009 4/28/2010 10/4/2010 | 11/2/2009 4/28/2010 | 6.37 | | 346.60 | 27.10 | |
| | | | | | | 4/28/2010 | 7.73 | | 345.24 | 31.31 |
| | | | | | | | | 7.18 15.53 | | 345.79 |
| | | | | | 337.44 | 27.10 | | | | |
| | | 10/10/2011 | 12.88 16.26 | | 340.09 336.71 | 27.11 27.11 | | | | |
| | | 4/9/2012 10/15/2012 4/29/2013 9/30/2013 | 10.20 | | 342.57 | 27.11 | | | | |
| | | | 16.60 | | 336.37 | 27.14 | | | | |
| | | | 10.45 | | 342.52 | 27.11 | | | | |
| | | | 16.43 | | 336.54 | 27.11 | | | | |
| | | 4/21/2014 | 8.96 | | 344.01 | 27.10 | | | | |
| | | 10/6/2014 | 12.57 | | 340.40 | 27.14 | | | | |
| | | 4/13/2015 | 6.90 | | 346.07 | 27.14 | | | | |
| | | 11/10/2015 | 1.18 | NM | 351.79 | 27.14 | | | | |
| | | 4/4/2016 | 7.13 | | 345.84 | 27.13 | | | | |
| | | 10/24/2016 | 12.74 | | 340.23 | 27.15 | | | | |
| | | 4/24/2017 | 6.98 | | 345.99 | 27.12 | | | | |
| | 350.57 | 10/23/2017 | 13.27 | | 337.30 | 27.10 | | | | |
| | | 4/23/2018 | 7.78 | | 342.79 | 27.14 | | | | |
| MW-22D | 352.67 | 9/29/2006 | 16.30 | | 336.37 | 43.45 | | | | |
| | | 12/18/2006 | 12.32 | | 340.35 | 43.45 | | | | |
| | | 3/19/2007 | 7.10 | | 345.57 | 43.45 | | | | |
| | | 9/26/2008 | 9.59 | | 343.08 | 42.25 | | | | |
| | | 5/19/2009 | 4.29 | | 348.38 | 42.25 | | | | |
| | | 11/2/2009 | 6.25 | | 346.42 | 42.19 | | | | |
| | | 4/28/2010 | 5.21 | | 347.46 | 42.34 | | | | |
| | | 10/4/2010 | 12.85 | | 339.82 | 42.22 | | | | |
| | | 4/4/2011 | 10.04 | | 342.63 | 42.25 | | | | |
| | | 10/10/2011 | 13.35 | | 339.32 | 42.24 | | | | |
| | | 4/9/2012 | 6.36 | | 346.31 | 42.28 | | | | |
| | | 10/15/2012 | 14.50 | | 338.17 | 42.24 | | | | |
| | | 4/29/2013 | 6.90 | | 345.77 | 42.24 | | | | |
| | | 9/30/2013 | 13.60 | | 339.07 | 42.33 | | | | |
| | | 4/21/2014 | 5.75 | | 346.92 | 42.30 | | | | |
| | | 10/6/2014 | 9.97 | | 342.70 | 42.27 | | | | |
| | | 4/13/2015 | 4.75 | | 347.92 | 42.35 | | | | |
| | | 11/10/2015 | 10.74 | NM | 341.93 | 42.26 | | | | |
| | | 4/4/2016 | 5.07 | | 347.60 | 42.26 | | | | |
| | | 10/24/2016 | 10.22 | | 342.45 | 42.29 | | | | |
| | 250.20 | 4/24/2017 | 4.87 | | 347.80 | 42.25 | | | | |
| | 350.28 | 10/23/2017 | 11.03 | | 339.25 | 42.08 | | | | |
| | | 4/23/2018 | 5.47 | | 344.81 | 42.22 | | | | |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------|------------------------|-----------------------|--------------------------|------------------|
| | | | | | | |
| MW-23 | 351.12 | 9/29/2006 | 15.50 | | 335.62 | 53.85 |
| | | 12/18/2006 | 12.78 | | 338.34 | 53.85 |
| | | 3/19/2007 | 9.60 | | 341.52 | 53.85 |
| | | 9/25/2008 | 11.84 | | 339.28 | 53.85 |
| | | 5/19/2009 | 6.63 | | 344.49 | 52.50 |
| | | 11/2/2009 | 10.01 | | 341.11 | 52.22 |
| | | 4/28/2010 | 7.08 | | 344.04 | 52.23 |
| | | 10/4/2010 | 14.80 | | 336.32 | 52.25 |
| | | 4/4/2011 | 11.90 | | 339.22 | 52.25 |
| | | 10/10/2011 | 15.76 | | 335.36 | 52.60 |
| | | 4/9/2012 | 9.06 | | 342.06 | 52.30 |
| | | 10/15/2012 | 15.55 | | 335.57 | 52.30 |
| | | 4/29/2013 | 10.20 | | 340.92 | 52.30 |
| | | 9/30/2013 | 15.87 | | 335.25 | 52.23 |
| | | 4/21/2014 | 8.56 | | 342.56 | 43.30 |
| | | 10/6/2014 | 12.14 | | 338.98 | 52.21 |
| | | 4/13/2015 | 6.42 | | 344.70 | 52.23 |
| | | 11/10/2015 | 12.43 | NM | 338.69 | 52.30 |
| | | 4/4/2016 | 6.96 | | 344.16 | 52.22 |
| | | 10/24/2016 | 12.39 | | 338.73 | 52.18 |
| | | 4/24/2017 | 7.07 | | 344.05 | 52.28 |
| | 348.75 | 10/23/2017 | 12.91 | | 335.84 | 53.40 |
| | | 4/23/2018 | 7.49 | | 341.26 | 52.30 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| | Casing | | Depth to | Depth to | Groundwater | Total Depth | | |
|---------|-----------------------------|------------|------------|-----------|-------------|-------------|--------|----|
| Well ID | Elevation (ft) ¹ | Date | Water (ft) | NAPL (ft) | Elevation | (ft) | | |
| | | | | | | | | |
| P-2S | 362.88 | 9/29/2006 | 8.25 | | 354.63 | 22.85 | | |
| | | 12/18/2006 | 4.55 | | 358.33 | 22.85 | | |
| | | 3/19/2007 | 5.95 | | 356.93 | 22.85 | | |
| | | 9/23/2008 | 5.23 | NM | 357.65 | 22.85 | | |
| | | 5/19/2009 | 5/19/2009 | | 3.68 | NM | 359.20 | NM |
| | | 11/2/2009 | 0.00 | | 362.88 | 15.71 | | |
| | | 4/28/2010 | 4.41 | | 358.47 | 22.84 | | |
| | | 10/4/2010 | 13.96 | | 348.92 | 22.80 | | |
| | | 4/4/2011 | 5.10 | | 357.78 | 22.85 | | |
| | | 10/10/2011 | 14.33 | | 348.55 | 22.87 | | |
| | | 4/9/2012 | 4.90 | | 357.98 | 22.87 | | |
| | | 10/15/2012 | 7.51 | | 355.37 | 22.87 | | |
| | | 4/29/2013 | 4.60 | | 358.28 | 22.60 | | |
| | | 9/30/2013 | 12.65 | | 350.23 | 15.70 | | |
| | | 4/21/2014 | 4.41 | | 358.47 | 22.89 | | |
| | | 10/6/2014 | 9.56 | | 353.32 | 15.69 | | |
| | | 4/13/2015 | 4.93 | | 357.95 | 22.85 | | |
| | | 11/10/2015 | 6.56 | | 356.32 | 22.87 | | |
| | | 4/4/2016 | 4.58 | | 358.30 | 22.86 | | |
| | | 10/24/2016 | 9.75 | | 353.13 | 22.81 | | |
| | | 4/24/2017 | 3.70 | | 359.18 | 22.86 | | |
| | 360.47 | 10/23/2017 | 11.18 | | 349.29 | 22.85 | | |
| | | 4/23/2018 | 4.07 | NM | 356.40 | 22.84 | | |
| P-2D | 362.51 | 9/29/2006 | 8.25 | | 354.26 | 35.60 | | |
| | | 12/18/2006 | 4.68 | | 357.83 | 35.60 | | |
| | | 3/19/2007 | 5.95 | | 356.56 | 35.60 | | |
| | | 9/23/2008 | 5.29 | | 357.22 | 35.60 | | |
| | | 5/19/2009 | 3.79 | NM | 358.72 | NM | | |
| | | 11/2/2009 | 3.56 | | 358.95 | 24.60 | | |
| | | 4/28/2010 | 4.51 | | 358.00 | 35.55 | | |
| | | 10/4/2010 | 15.67 | | 346.84 | 35.69 | | |
| | | 4/4/2011 | 5.17 | | 357.34 | 35.60 | | |
| | | 10/10/2011 | 13.97 | | 348.54 | 35.53 | | |
| | | 4/9/2012 | 4.91 | | 357.60 | 35.59 | | |
| | | 10/15/2012 | 8.14 | | 354.37 | 35.57 | | |
| | | 4/29/2013 | 4.65 | | 357.86 | 35.62 | | |
| | | 9/30/2013 | 12.60 | | 349.91 | 35.60 | | |
| | | 4/21/2014 | 4.55 | | 357.96 | 35.65 | | |
| | | 10/6/2014 | 8.95 | | 353.56 | 35.60 | | |
| | | 4/13/2015 | 4.96 | | 357.55 | 24.55 | | |
| | | 11/10/2015 | 6.94 | NM | 355.57 | 35.64 | | |
| | | 4/4/2016 | 4.69 | | 357.82 | 35.64 | | |
| | | 10/24/2016 | 9.37 | | 353.14 | 35.59 | | |
| | | 4/24/2017 | 3.89 | | 358.62 | 35.65 | | |
| | 360.13 | 10/23/2017 | 10.91 | | 349.22 | 35.59 | | |
| | | 4/23/2018 | 4.26 | NM | 355.87 | 35.60 | | |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|-------------------------|------------------------|-----------------------|--------------------------|---------------------|
| P-3S | 352.25 | 9/29/2006 | 11.40 | | 340.85 | 20.80 |
| P-33 | 332.23 | 12/18/2006 | 4.27 | | 340.83 | 20.80 |
| | | 3/19/2007 | 3.99 | | 348.26 | 20.80 |
| | | 9/24/2008 | 4.26 | | 347.99 | 20.80 |
| | | 5/19/2009 | 1.57 | NM | 350.68 | NM |
| | | 11/2/2009 | 2.10 | | 350.15 | 20.85 |
| | | 4/28/2010 | 2.52 | | 349.73 | 20.78 |
| | | 10/4/2010 | 11.70 | | 340.55 | 20.78 |
| | | 4/4/2011 | 4.26 | | 347.99 | 19.82 |
| | | 10/10/2011 | 12.21 | | 340.04 | 20.83 |
| | | 4/9/2012 | 2.88 | | 349.37 | 20.84 |
| | | 10/15/2012 | 10.25 | | 342.00 | 20.83 |
| | | 4/29/2013 | 2.60 | | 349.65 | 20.81 |
| | | 9/30/2013 | 12.11 | | 340.14 | 20.80 |
| | | 4/21/2014 | 2.31 | | 349.94 | 20.85 |
| | | 10/6/2014 | 8.15 | | 344.10 | 20.82 |
| | | 4/13/2015 | 2.46 | | 349.79 | 20.81 |
| | | 11/10/2015 | 6.88 | NM | 345.37 | 20.82 |
| | | 4/4/2016 | 2.21 | | 350.04 | 20.82 |
| | | 10/24/2016 | 8.96 | | 343.29 | 20.82 |
| | | 4/24/2017 | 1.68 | | 350.57 | 20.82 |
| | 349.88 | 10/23/2017 | 10.31 | | 339.57 | 20.82 |
| | | 4/23/2018 | 1.06 | NM | 348.82 | 20.81 |
| P-3D | 352.28 | 9/29/2006 | 13.85 | | 338.43 | 44.21 |
| | | 12/18/2006 | 8.21 | | 344.07 | 44.21 |
| | | 3/19/2007 | 5.10 | | 347.18 | 44.21 |
| | | 9/24/2008 | 7.00 | | 345.28 | 44.21 |
| | | 5/19/2009 | 2.67 | NM | 349.61 | NM |
| | | 11/2/2009 | 3.96 | | 348.32 | 42.35 |
| | | 4/28/2010 | 4.02 | | 348.26 | 42.19 |
| | | 10/4/2010 | 12.09 | | 340.19 | 42.19 |
| | | 4/4/2011 | 7.36 | | 344.92 | 42.21 |
| | | 10/10/2011 | 12.62 | | 339.66 | 41.98 |
| | | 4/9/2012 | 4.39 | | 347.89 | 42.26 |
| | | 10/15/2012 | 12.88 | | 339.40 | 42.25 |
| | | 4/29/2013 | 4.60 | | 347.68 | 42.25 |
| | | 9/30/2013 | 12.77 | | 339.51 | 42.15 |
| | | 4/21/2014 | 3.72 | | 348.56 | 42.27 |
| | | 10/6/2014 | 8.96 | | 343.32 | 42.23 |
| | | 4/13/2015 | 3.49 | ND 4 | 348.79 | 42.22 |
| | | 11/10/2015 | 8.90 | NM | 343.38 | 42.24 |
| | | 4/4/2016 | 3.53 | | 348.75 | 42.21 |
| | | 10/24/2016 | 9.27 | | 343.01 | 42.21 |
| | 250.02 | 4/24/2017 | 3.19 | | 349.09 | 42.23 |
| | 350.02 | 10/23/2017 4/23/2018 | 10.50 3.70 | NM | 339.52 346.32 | 42.22 42.21 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|-------------------------|------------------------|-----------------------|--------------------------|---------------------|
| D 46 | 246.55 | 0/20/2006 | 12.20 | | 224.25 | 12.60 |
| P-4S | 346.55 | 9/29/2006 | 12.30 10.00 | | 334.25 | 12.60 |
| | | 12/18/2006 3/19/2007 | 7.00 | | 336.55 | 12.60 |
| | | 10/13/2008 | 7.00 9.22 | NM | 339.55 337.33 | 12.60 12.50 |
| | | 5/19/2009 | 3.97 | NM | 342.58 | 12.30 NM |
| | | 11/2/2009 | 7.78 | INIVI | 338.77 | 12.90 |
| | | 4/28/2010 | 4.19 | | 342.36 | 7.86 |
| | | 10/4/2010 | 11.82 | | 342.30 | 20.00 |
| | | 4/4/2010 | 9.31 | | 334.73 | 20.00 |
| | | 10/10/2011 | 12.85 | | 337.24 | 20.00 |
| | | 4/9/2012 | 6.59 | | 339.96 | 20.03 |
| | | 10/15/2012 | 12.61 | | 333.94 | 20.08 |
| | | 4/29/2013 | 7.35 | | 339.20 | 20.04 |
| | | 9/30/2013 | 13.00 | | 333.55 | 20.03 |
| | | 4/21/2014 | 6.07 | | 340.48 | 20.06 |
| | | 10/6/2014 | 9.34 | | 340.48 | 20.06 |
| | | 4/13/2015 | 9.54 3.64 | | 342.91 | 20.04 |
| | | 11/10/2015 | 9.72 | NM | 342.91 | 20.02 |
| | | | 9.72 4.24 | INIVI | | |
| | | 4/4/2016 | | | 342.31 | 12.89 |
| | | 10/24/2016 | 9.57 4.44 | | 336.98 342.11 | 20.06 |
| | 345.34 | 4/24/2017 | | | 335.30 | 20.08 |
| | 343.34 | 10/23/2017 4/23/2018 | 10.04 4.90 | | 333.30 340.44 | 20.03 20.04 |
| | | 4/23/2018 | 4.90 | | 340.44 | 20.04 |
| P-4D | 346.28 | 9/29/2006 | 12.05 | | 334.23 | 24.50 |
| | | 12/18/2006 | 9.00 | | 337.28 | 24.50 |
| | | 3/19/2007 | 6.75 | | 339.53 | 24.50 |
| | | 10/13/2008 | 8.98 | | 337.30 | 24.22 |
| | | 5/19/2009 | 3.85 | NM | 342.43 | NM |
| | | 11/2/2009 | 7.45 | | 338.83 | 28.19 |
| | | 4/28/2010 | 4.24 | | 342.04 | 20.25 |
| | | 10/4/2010 | 11.67 | | 334.61 | 40.15 |
| | | 4/4/2011 | 9.05 | | 337.23 | 40.20 |
| | | 10/10/2011 | 12.70 | | 333.58 | 40.22 |
| | | 4/9/2012 | 6.35 | | 339.93 | 40.28 |
| | | 10/15/2012 | 12.43 | | 333.85 | 40.28 |
| | | 4/29/2013 | 7.10 | | 339.18 | 40.28 |
| | | 9/30/2013 | 12.85 | | 333.43 | 28.10 |
| | | 4/21/2014 | 5.98 | | 340.30 | 40.27 |
| | | 10/6/2014 | 9.22 | | 337.06 | 40.24 |
| | | 4/13/2015 | 3.55 | | 342.73 | 40.21 |
| | | 11/10/2015 | 9.58 | NM | 336.70 | 40.17 |
| | | 4/4/2016 | 4.13 | | 342.15 | 28.16 |
| | | 10/24/2016 | 9.50 | | 336.78 | 40.20 |
| | | 4/24/2017 | 4.33 | | 341.95 | 40.23 |
| | 345.07 | 10/23/2017 | 9.07 | | 336.00 | 40.17 |
| | | 4/23/2018 | 4.74 | | 340.33 | 28.16 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|-------------------------|------------------------|-----------------------|--------------------------|---------------------|
| D 50 | 255 20 | 0/20/2006 | 2.00 | | 251.42 | 14.60 |
| P-5S | 355.32 | 9/29/2006 12/18/2006 | 3.90 0.82 | | 351.42 354.50 | 14.60 14.60 |
| | | 3/19/2007 | 0.62 | | 354.69 | 14.60 |
| | | 10/15/2008 | 1.20 | | 354.12 | 14.60 |
| | | 5/19/2009 | 6.44 | NM | 348.88 | NM |
| | | 11/2/2009 | 0.30 | 11111 | 355.02 | 14.10 |
| | | 4/28/2010 | 0.54 | | 354.78 | 21.25 |
| | | 10/4/2010 | 4.59 | | 350.73 | 21.15 |
| | | 4/4/2011 | 0.88 | | 354.44 | 21.19 |
| | | 10/10/2011 | 8.36 | | 346.96 | 21.29 |
| | | 4/9/2012 | NM | NM | NM | NM |
| | | 10/15/2012 | 4.50 | | 350.82 | 21.30 |
| | | 4/29/2013 | 1.00 | | 354.32 | 21.30 |
| | | 9/30/2013 | 5.97 | | 349.35 | 14.07 |
| | | 4/21/2014 | 0.51 | | 354.81 | 14.70 |
| | | 10/6/2014 | 2.55 | | 352.77 | 14.56 |
| | | 4/13/2015 | 0.50 | | 354.82 | 14.06 |
| | | 11/10/2015 | 2.40 | NM | 352.92 | 21.26 |
| | | 4/4/2016 | 0.50 | | 354.82 | 14.06 |
| | | 10/24/2016 | 4.66 | | 350.66 | NM |
| | | 4/24/2017 | 0.28 | | 355.04 | 21.29 |
| | 352.89 | 10/23/2017 | 5.69 | | 347.20 | 21.26 |
| | | 4/23/2018 | Above TOC | | | 14.08 |
| P-5D | 354.73 | 9/29/2006 | 3.60 | | 351.13 | 40.81 |
| | | 12/18/2006 | 0.95 | | 353.78 | 40.81 |
| | | 3/19/2007 | 0.92 | | 353.81 | 40.81 |
| | | 10/16/2008 | 1.01 | | 353.72 | 40.81 |
| | | 5/19/2009 | 0.51 | NM | 354.22 | NM |
| | | 11/2/2009 | 0.50 | | 354.23 | 40.90 |
| | | 4/28/2010 | 0.60 | | 354.13 | 40.77 |
| | | 10/4/2010 | 4.22 | | 350.51 | 40.77 |
| | | 4/4/2011 | 0.98 | | 353.75 | 40.80 |
| | | 10/10/2011 | 7.81 | | 346.92 | 40.81 |
| | | 4/9/2012 | NM | NM | NM | NM |
| | | 10/15/2012 | 4.38 | | 350.35 | 40.82 |
| | | 4/29/2013 | 1.00 | | 353.73 | 40.85 |
| | | 9/30/2013 | 5.97 | | 348.76 | 40.81 |
| | | 4/21/2014 | 0.55 | | 354.18 | 40.85 |
| | | 10/6/2014 | 2.49 | | 352.24 | 40.81 |
| | | 4/13/2015 | 0.40 | | 354.33 | 40.80 |
| | | 11/10/2015 | 2.12 | NM | 352.61 | 41.77 |
| | | 4/4/2016 | 0.70 | | 354.03 | 40.82 |
| | | 10/24/2016 | 4.08 | | 350.65 | NM |
| | 252 25 | 4/24/2017 | Above TOC | | | 40.82 |
| | 352.35 | 10/23/2017 | 5.30 | | 347.05 | 40.78 |
| | | 4/23/2018 | Above TOC | | | 40.80 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| Well ID | Casing Elevation (ft) ¹ | Date | Depth to Water (ft) | Depth to NAPL (ft) | Groundwater Elevation | Total Depth (ft) |
|---------|---------------------------------------|------------|------------------------|-----------------------|--------------------------|------------------|
| P-6S | 350.79 | 9/29/2006 | 16.51 | | 334.28 | 17.70 |
| P-05 | 330.79 | 12/18/2006 | 13.10 | | 334.28 | 17.70 |
| | | 3/19/2007 | 8.05 | | 342.74 | 17.70 |
| | | 10/14/2008 | 11.44 | | 339.35 | 20.50 |
| | | 5/19/2009 | 4.83 | NM | 345.96 | 20.30 NM |
| | | 11/2/2009 | 8.43 | 11111 | 342.36 | 13.15 |
| | | 4/28/2010 | 4.88 | | 345.91 | 13.18 |
| | | 10/4/2010 | 16.52 | | 334.27 | 20.05 |
| | | 4/4/2011 | 10.88 | | 339.91 | 20.05 |
| | | 10/10/2011 | 16.98 | | 333.81 | 20.16 |
| | | 4/9/2012 | 7.85 | | 342.94 | 20.16 |
| | | 10/15/2012 | 15.68 | | 335.11 | 20.22 |
| | | 4/29/2013 | 4.60 | | 346.19 | 20.25 |
| | | 9/30/2013 | 15.98 | | 334.81 | 20.10 |
| | | 4/21/2014 | 7.44 | | 343.35 | 21.08 |
| | | 10/6/2014 | 12.04 | | 338.75 | 20.10 |
| | | 4/13/2015 | 4.77 | | 346.02 | 20.13 |
| | | 11/10/2015 | 11.83 | NM | 338.96 | 20.11 |
| | | 4/4/2016 | 5.22 | | 345.57 | 13.15 |
| | | 10/24/2016 | 13.29 | | 337.50 | 20.02 |
| | | 4/24/2017 | 5.18 | | 345.61 | 20.22 |
| | 349.09 | 10/23/2017 | 13.28 | | 335.81 | 20.01 |
| | | 4/23/2018 | 5.72 | | 343.37 | 13.15 |
| P-6D | 350.68 | 9/29/2006 | 17.35 | | 333.33 | 30.75 |
| | | 12/18/2006 | 10.45 | | 340.23 | 30.75 |
| | | 3/19/2007 | 4.60 | | 346.08 | 30.75 |
| | | 10/14/2008 | 7.17 | | 343.51 | 30.75 |
| | | 5/19/2009 | 2.51 | NM | 348.17 | NM |
| | | 11/2/2009 | 4.03 | | 346.65 | 39.75 |
| | | 4/28/2010 | 3.02 | | 347.66 | 39.98 |
| | | 10/4/2010 | 11.01 | | 339.67 | 39.63 |
| | | 4/4/2011 | 7.43 | | 343.25 | 39.69 |
| | | 10/10/2011 | 10.23 | | 340.45 | 39.95 |
| | | 4/9/2012 | 4.20 | | 346.48 | 39.73 |
| | | 10/15/2012 | 11.73 | | 338.95 | 39.70 |
| | | 4/29/2013 | 8.45 | | 342.23 | 39.70 |
| | | 9/30/2013 | 11.20 | | 339.48 | 39.65 |
| | | 4/21/2014 | 3.76 | | 346.92 | 39.73 |
| | | 10/6/2014 | 7.71 | | 342.97 | 39.72 |
| | | 4/13/2015 | 2.74 | | 347.94 | 39.71 |
| | | 11/10/2015 | 8.29 | NM | 342.39 | 39.63 |
| | | 4/4/2016 | 3.00 | | 347.68 | 39.71 |
| | | 10/24/2016 | 8.81 | | 341.87 | 39.66 |
| | 240.00 | 4/24/2017 | 2.96 | | 347.72 | 39.72 |
| | 349.00 | 10/23/2017 | 9.00 | | 340.00 | 39.70 |
| | | 4/23/2018 | 3.31 | | 345.69 | 39.71 |

Table D.1 Historical Water Level and NAPL Data Table, Old Midland Products Superfund Site.

| | Casing | | Depth to | Depth to | Groundwater | Total Depth | |
|--------------|-------------------------------------|------------|------------|-----------------|-------------|-------------|--|
| Well ID | Elevation (ft) ¹ | Date | Water (ft) | NAPL (ft) | Elevation | (ft) | |
| | (================================== | Bute | | 2 12 22 22 (23) | | (=5) | |
| P-7S | 354.50 | 9/29/2006 | 3.10 | | 351.40 | 21.00 | |
| 1-75 | 334.30 | 12/18/2006 | 0.00 | | 354.50 | 21.00 | |
| | | 3/19/2007 | 0.00 | | 354.50 | 21.00 | |
| | | 10/17/2008 | 0.69 | | 353.81 | 21.00 | |
| | | 5/19/2009 | >TOC | NM | NM | NM | |
| | | 11/2/2009 | 0.00 | 14141 | 354.50 | 21.00 | |
| | | 4/28/2010 | 0.00 | | 354.50 | 21.00 | |
| | | 10/4/2010 | 6.80 | | 347.70 | 21.00 | |
| | | 4/4/2011 | 0.21 | | 354.29 | 20.96 | |
| | | 10/10/2011 | 7.60 | | 346.90 | 20.94 | |
| | | 4/9/2012 | NM | NM | NM | NM | |
| | | 10/15/2012 | 3.69 | | 350.81 | 20.95 | |
| | | 4/29/2013 | NM | NM | NM | NM | |
| | | 9/30/2013 | 5.15 | | 349.35 | 19.23 | |
| | | 4/21/2014 | 0.00 | | 354.50 | 21.03 | |
| | | 10/6/2014 | 2.75 | | 351.75 | 21.00 | |
| | | 4/13/2015 | 0.00 | NM | 354.50 | 21.00 | |
| | | 11/10/2015 | 1.58 | NM | 352.92 | 21.36 | |
| | | 4/4/2016 | 0.00 | | 354.50 | 9.03 | |
| | | 10/24/2016 | 2.72 | | 351.78 | NM | |
| | | 4/24/2017 | Above TOC | | | 9.04 | |
| | 354.46 | 10/23/2017 | 7.26 | | 347.20 | 23.40 | |
| | | 4/23/2018 | 1.44 | NM | 353.02 | 23.36 | |
| | | | | | | | |
| P-8S | 354.41 | 9/29/2006 | 2.88 | | 351.53 | 21.40 | |
| | | 12/18/2006 | | | 354.41 | 21.40 | |
| | | 3/19/2007 | 0.00 | | 354.41 | 21.40 | |
| | | 10/17/2008 | 0.33 | | 354.08 | 21.40 | |
| | | 5/19/2009 | NM | NM | NM | NM | |
| | | 11/2/2009 | 0.00 | | 354.41 | 21.41 | |
| | | 4/28/2010 | 0.00 | | 354.41 | 21.40 | |
| | | 10/4/2010 | 6.70 | | 347.71 | 21.40 | |
| | | 4/4/2011 | NM | | NM | NM | |
| | | 10/10/2011 | 7.59 | | 346.82 | 21.39 | |
| | | 4/9/2012 | NM | NM | NM | NM | |
| | | 10/15/2012 | 3.46 | | 350.95 | 21.39 | |
| | | 4/29/2013 | NM | NM | NM | NM | |
| | | 9/30/2013 | 4.92 | | 349.49 | 21.40 | |
| | | 4/21/2014 | 0.00 | | 354.41 | 21.45 | |
| | | 10/6/2014 | 1.66 | | 352.75 | 21.40 | |
| | | 4/13/2015 | 0.00 | NM | 354.41 | 21.4 | |
| | | 11/10/2015 | 1.41 | NM | 353.00 | 21.36 | |
| | | 4/4/2016 | 0.00 | | 354.41 | 21.41 | |
| | | 10/24/2016 | 3.79 | | 350.62 | NM | |
| | 25/11 | 4/24/2017 | Above TOC | | | 21.42 | |
| | 354.14 | 10/23/2017 | 6.86 | | 347.28 | 23.48 | |
| NM = Not mea | <u> </u> | 4/23/2018 | 1.10 | NM | 353.04 | 23.55 | |

NM = Not measured.

⁻⁻⁻ = No product observed or measured.

NAPL = Non-aqueous phase liquid.

Obs. NAPL = NAPL observed during field measurements, but not detected by interface probe.

TOC = Top of casing.

¹ Initial elevations provided by ADEQ with unspecified datum (email communication with Charles Johnson, ADEQ on 10/21/2013). Wells surveyed to NAVD88 November 16, 2017 Harmon Surveying, Inc., survey report.



Historical Analytical Data

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | rophenor un | | • | | | | | | | | | |
|----------------------------------|------|---|--------------------------------|------------------------------|---------------------------------------|---|-----------------------|--------------|--------------------------|--|-------------------------|-----------------------------------|---------------------------|------------------------------------|--------------------------------------|--|-------------------------------------|----------------------------------|------------------------------|
| Well Da ID Samj Cleanup Levels (| pled | $\begin{array}{c} (T_i^{\beta m}) \\ (T_i^{\beta m}) \end{array}$ | : (T/s/d (T/s/d) Carbazole* | ουσιου Ε (μg/L) 240 | Lagger (Lggμ) Acenaphthene (Lggμ) 370 | which the decomposition of the matter of th | Pagη (Lggμ) 940 | μg/L) A70 | (1/gμ) (1/gμ) 0081 | $\begin{array}{c} L_{\rm g} = 1.00 \\ | 180 (mg/L) Pyrene | μg/L) 0.2 Benzo [a] anthracene | oueskeue (µg/L) 9.2 | (Pg Benzo [b] (Pg fluoranthene 0.2 | (T/gm) Benzo [k] (T/gm) fluoranthene | $(\mu_{\rm g}^{\rm g})$ Benzo [a] byrene $(\mu_{\rm g}^{\rm g})$ | 0.5 ga Indeno [1,2,3-cd] (T) pyrene | m Dibenzo [a,h] [7] anthracene * | Derylene (g,h,i] 7 perylene |
| | 4000 | 4.0 | _ | | | | | | | | | | | | | | | | |
| 7/21/ | | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 10/26/ | | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1/18/ | | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 4/19/ | | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7/24/ | | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1/23/ | | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7/30/ | | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8/26/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/27/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/26/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/24/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/24/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/21/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/22/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/21/2 | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/22/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 9/27/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12/18/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/20/ | | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10/1/2 | | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 5/18/ | | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 11/4/ | | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 4/29/ | | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 10/5/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/4/2 | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/11/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/10/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/16/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 5/2/2 | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/2/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/21/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/7/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/14/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 11/13/ | | <1 | < 0.1 | < 0.1 | < 0.1 | 0.235 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/6/2 | | <1 | < 0.1 | < 0.1 | < 0.1 | 0.171 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/27/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/24/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/24/ | | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/25/ | 2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | 4 1 7 11 15 III g | | | | | | | | | | |
|-------------|--------------------------------|-------------------------|----------------------|-------------------------|-----------------------------|--|---------------------------|---|-------------------|------------------------------|-------------------------|-----------------------------------|-----------------|--|--------------------------------|--|--|---|---------------------------------|
| Cleanup Lev | Date Sampled vels (µg/L) | 1 (%) Pentachlorophenol | : (T/gat) (T/gat) | ουοιου (μg/L) 240 | γ(L) Acenaphthene 370 | $\begin{array}{c} \text{maphthalenc} \\ \text{mg/L} \\ \text{6.2} \end{array}$ | (L) Acenaphthylene 940 | μς Δη (μς/Ση Απου Απου Απου Απου Απου Απου Απου Απου | (L/gμ) (Mg/gμ) | $(L/g\mu)$ Eluoranthene 1500 | 180 (hg/r) Pyrene | (Lg Benzo [a] anthracene (a. 0.2) | chrysene (hg/L) | (b) Benzo [b] (c) (d) Benzo [b] (d) (e) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e | (T/gm) Benzo [k] (Tluoranthene | $(\mathbf{L}_{\mathbf{g}}^{\mathbf{g}})$ Benzo [a] byrene $\mathbf{L}_{\mathbf{g}}^{\mathbf{g}}$ | (T) (12,3-cd) (T) (T) (T) (T) (T) (T) (T) (T) (T) (T | The Dibenzo [a,h] The Dibenzo [a,h] The Dibenzo [a,h] The Dibenzo [a,h] | θ Benzo [g,h,i] 0 T perylene |
| MW-1D | | | | | | | | | | | | | | | | | | | |
| II | 7/21/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 10/26/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 1/18/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 4 | 4/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7 | 7/24/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 1/23/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7 | 7/30/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8 | 8/26/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/3/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/26/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/24/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II | 2/21/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/22/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II | 2/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II | 8/22/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II | 9/27/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II | 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II | 3/20/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 1 | 9/30/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/18/2009 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/5/2009 | <2 | <0.2 | 0.246 | 0.324 | 0.085 | < 0.08 | 0.705 | < 0.08 | 0.236 | 0.093 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| II | 4/28/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| II | 10/5/2010 | <1 | < 0.1 | <0.12 | < 0.12 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 4/4/2011 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 10/11/2011 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 4/10/2012 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 10/16/2012 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| | 5/2/2013 | <1 | <0.1 | 0.126 | <0.1 | < 0.08 | < 0.08 | 0.995 | 0.132 | 0.44 | 0.307 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| | 9/30/2013 | <1 | <0.1 | <0.120 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 4/21/2014 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 10/7/2014 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | <0.08 | < 0.08 | <0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | <0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/13/2015 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | <0.08 | < 0.08 | <0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 11/13/2015 | <1 | <0.1 | <0.1 | <0.1 | 0.228 | <0.08 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | <0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| II | 4/6/2016 | <1 <1 | <0.1 | <0.1 | <0.1 | 0.228 | <0.08 | < 0.08 | <0.08 | <0.08 | <0.08 | <0.1 | <0.1 | <0.16 | <0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| III . | 10/27/2016 | | | | <0.1 | < 0.08 | <0.1 | <0.08 | <0.08 | | <0.08 | | <0.1 <0.1 | <0.16 | | | <0.2 | < 0.16 | <0.16 <0.16 |
| | 4/24/2016 | <1 <1 | <0.1 <0.1 | <0.1 <0.1 | <0.1 | <0.08 | <0.08 | < 0.08 | <0.08 | <0.08 <0.08 | <0.08 | <0.1 <0.1 | <0.1 <0.1 | <0.16 | <0.16 <0.16 | <0.16 <0.16 | <0.2 | < 0.16 | <0.16 |
| | | | | | | | | | | | | | | | | | | | |
| | 10/24/2017 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/25/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well | Date | Pentachlorophenol | Carbazole* | Fluorene | Acenaphthene | Naphthalene | Acenaphthylene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo [a] anthracene | Chrysene | Benzo [b] fluoranthene | Benzo [k] fluoranthene | Benzo [a] pyrene | Indeno [1,2,3-cd] pyrene | Dibenzo [a,h] anthracene * | Benzo [g,h,i] perylene |
|-----------|--------------|-------------------|------------|----------|--------------|-------------|----------------|--------------|------------|--------------|--------|----------------------|----------|---------------------------|---------------------------|------------------|-----------------------------|-------------------------------|---------------------------|
| ID | Sampled | (µg/L) | (µg/L) | (µg/L) | (µg/L) | $(\mu g/L)$ | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) |
| Cleanup L | evels (µg/L) | 1 | | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 470 |
| MW-3S | | | | | | | | | | | | | | | | | | | |
| | 7/15/1999 | 2780 | < 50 | 35.3 | 59.5 | 34.3 | < 20 | 45.8 | < 20 | 99.8 | 59 | < 20 | < 20 | < 20 | < 20 | < 20 | <20 | <20 | < 20 |
| | 10/26/1999 | 2000 | <5 | 252 | 258 | 140 | <2 | 487 | 105 | 743 | 578 | 109 | 115 | 99.6 | 49.3 | 67 | 22.2 | <2 | <2 |
| | 1/20/2000 | 1290 | < 50 | 330 | 392 | 85.7 | < 20 | 756 | 115 | 654 | 725 | 155 | 165 | 78.4 | 32.8 | 40.3 | <20 | <20 | 54 |
| | 4/24/2000 | 1920 | < 50 | 426 | 445 | 150 | < 20 | 913 | 135 | 641 | 386 | 133 | 142 | 69.2 | 27.1 | 40 | 64.4 | 71.5 | 73.4 |
| | 7/26/2000 | <11 | < 5.5 | 39.4 | 52.9 | 79.1 | < 2.2 | 61.2 | 7.43 | 28.4 | 31.3 | 7.55 | 8.29 | 4.16 | <2.2 | 2.51 | < 2.2 | < 2.2 | <2.2 |
| | 1/25/2001 | 1840 | < 50 | 732 | 1150 | 177 | < 20 | 2060 | 341 | 1880 | 928 | 347 | 355 | 150 | 61.2 | 77.4 | 57 | 31.9 | 50.3 |
| | 7/30/2001 | 757 | <5 | 83.6 | 104 | 41 | <2 | 170 | 74.7 | 152 | 135 | 37.6 | 34.8 | 19.6 | 11.6 | 10.7 | 2.96 | <2 | 3.01 |
| | 8/26/2002 | 650 | <8 | 99 | 88 | 32 | <8 | 220 | 26 | 130 | 95 | 23 | 23 | 10 | 9.2 | <20 | <8 | <8 | <8 |
| | 3/4/2003 | 890 | <10 | 260 | 200 | 87 | 17 | 1100 | 190 | 700 | 650 | 120 | 120 | 47 | 47 | 35 | 11 | <10 | 10 |
| | 8/26/2003 | 530 | <8 | 93 | 100 | 29 | <8 | 190 | 17 | 86 | 76 | 17 | 19 | <8 | <8 | <20 | <8 | <8 | <8 |
| | 2/24/2004 | 970 | <20 | 310 | 220 | 51 | < 20 | 910 | 79 | 380 | 310 | 65 | 64 | 26 | 20 | < 50 | <20 | <20 | <20 |
| | 8/25/2004 | 320 | <20 | 320 | 210 | 45 | < 20 | 810 | 85 | 310 | 210 | 51 | 50 | < 20 | 20 | < 50 | <20 | <20 | <20 |
| | 2/22/2005 | 530 | <20 | 270 | 190 | 38 | < 20 | 670 | 63 | 280 | 200 | 48 | 51 | 24 | 24 | < 50 | <20 | <20 | <20 |
| | 8/23/2005 | 910 | <40 | 480 | 420 | 72 | <40 | 1700 | 170 | 770 | 440 | 110 | 140 | 43 | 48 | <100 | <40 | <40 | <40 |
| | 2/21/2006 | 1400 | <100 | 910 | 800 | 110 | <100 | 3700 | 420 | 1800 | 930 | 230 | 230 | 140 | <100 | < 300 | <100 | <100 | <100 |
| | 8/22/2006 | < 500 | <100 | 210 | 140 | <100 | <100 | 550 | <100 | 300 | 190 | <100 | <100 | <100 | <100 | <300 | <100 | <100 | <100 |
| | 10/9/2006 | 260 | <10 | 27 | 24 | <10 | <10 | 32 | <10 | 25 | 26 | <10 | <10 | <10 | <10 | <30 | <10 | <10 | <10 |
| | 12/21/2006 | 220 | <10 | 24 | 21 | <10 | <10 | 27 | <10 | 11 | <10 | <10 | <10 | <10 | <10 | <30 | <10 | <10 | <10 |
| | 3/21/2007 | 190 | <2 | 24 | 22 | 10 | <2 | 24 | 23 | 5.5 | 3.4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 5/20/2009 | 697 | 2.879 | 30.6 | 27.9 | 24.3 | 2.023 | 35.7 | 3.19 | 10.1 | 6.892 | 1.117 | 0.701 | < 0.16 | < 0.16 | 0.468 | 0.298 | < 0.24 | < 0.24 |
| | 11/4/2009 | 1840 | 9.17 | 34.2 | 29.5 | 48.4 | 1.869 | 30.3 | 3.006 | 6.954 | 3.902 | <2 | <2 | <1.6 | <1.6 | <1.6 | <2.4 | <2.4 | <2.4 |
| | 4/29/2010 | 1160 | <20 | 35.7 | 34.2 | 55.2 | <8 | 26.6 | <8 | 9.017 | <8 | <20 | <20 | <16 | <16 | <16 | <24 | <24 | <24 |
| | 10/11/2010 | 953 | <10 | 23.5 | 20.2 | 26.6 | <8 | 21.5 | <8 | <8 | <8 | <10 | <10 | <16 | <16 | <16 | <20 | <16 | <16 |
| | 4/13/2011 | 280 | 2.98 | 19.2 | 17.2 | 24.7 | 2.2 | 14.9 | 1.78 | 7.77 | 4 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/18/2011 | 534 | 4.03 | 16 | 15.9 | 26.5 | 1.81 | 17 | 1.03 | 1.37 | 1.44 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/19/2012 | 322 | 2.51 | 13.3 | 12.1 | 23.5 | 1.73 | 9.21 | < 0.8 | 2.61 | 1.6 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/23/2012 | 795 | 3.85 | 18.2 | 16.2 | 25.9 | 2.34 | 15 | 1.18 | 3.96 | 3.36 | 1.27 | <1 | 1.69 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 5/6/2013 | 442 | 1.59 | 22 | 41 | 30.3 | 2.12 | 10.2 | 1.46 | 5.45 | 3.4 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/3/2013 | 688 | 6.59 | 16.9 | 12.8 | 32.4 | 1.9 | 14.2(B) | < 0.8 | 2.71(B) | 1.58 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/23/2014 | 609 | 5.07 | 17.2 | 15.9 | 28 | 1.7 | 12.7 | < 0.8 | 3.12 | 2.56 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/8/2014 | 875 | 6.32 | 10.1 | 8.93 | 18 | 1.09 | 9.29 | < 0.8 | 1.24 | 1.24 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/15/2015 | 246 | 4.97 | 10.6 | 10.7 | 18.2 | 1.03 | 9.03 | < 0.8 | 2.9 | 2.19 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 11/13/2015 | 360 | 5.57 | 4.97 | 5.12 | 8.09 | < 0.8 | 3.88 | < 0.8 | 1.15 | 0.898 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/5/2016 | 649 | 3.40 | 6.37 | 6.45 | 8.48 | 0.823 | 5.11 | < 0.08 | 2.45 | 1.86 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/26/2016 | 512 | 3.43 | 3.08 | 2.21 | 4.53 | < 0.8 | 2.75 | < 0.08 | 2.83 | 2.73 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/27/2017 | 341 | 3.16 | 2.46 | 2.14 | 4.13 | < 0.8 | 2.23 | < 0.8 | 2.2 | 1.39 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/26/2017 | 286 | 4.16 | 2.06 | 1.96 | 4.9 | < 0.8 | < 0.8 | < 0.8 | < 0.8 | < 0.8 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/26/2018 | 799 | 2.89 | 3.53 | 3.57 | 4.01 | <2 | 2.49 | <2 | 2.61 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | торпеног анс | | | | 4) | | | | | | | |
|-----------|---------------|-------------------|-------------|-------------|--------------|-------------|----------------|--------------|-------------|--------------|-------------|----------------------|----------|---------------------------|---------------------------|------------------|-----------------------------|-------------------------------|---------------------------|
| Well | Date | Pentachlorophenol | Carbazole* | Fluorene | Acenaphthene | Naphthalene | Acenaphthylene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo [a] anthracene | Chrysene | Benzo [b] fluoranthene | Benzo [k] fluoranthene | Benzo [a] pyrene | Indeno [1,2,3-cd] pyrene | Dibenzo [a,h] anthracene * | Benzo [g,h,i] perylene |
| ID | Sampled | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g \! / \! L)$ | (µg/L) | (µg/L) | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ |
| Cleanup I | Levels (µg/L) | 1 | | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 470 |
| MW-3D | | | | | | | | | | | | | | | | | | | |
| | 7/15/1999 | 154 | < 50 | 858 | 1240 | 1040 | 25.6 | 2330 | 376 | 867 | 612 | 153 | 158 | 80.1 | 24.5 | 51.1 | <20 | <20 | <20 |
| | 10/26/1999 | <10 | 6.69 | 479 | 678 | 580 | 27.3 | 1210 | 200 | 647 | 372 | 133 | 158 | 57.1 | 268 | 42.3 | <2 | <2 | <2 |
| | 1/20/2000 | <100 | < 50 | 1190 | 1500 | 457 | 37.9 | 3020 | 498 | 1470 | 998 | 259 | 238 | 132 | 51.6 | 91.4 | 40.3 | <20 | 30.6 |
| | 4/24/2000 | 18.1 | <5 | 299 | 546 | 525 | 20.2 | 523 | 81.7 | 137 | 126 | 31.4 | 29.7 | 11.9 | 5.86 | 8.86 | <2 | <2 | <2 |
| | 7/26/2000 | <10 | <5 | 46.7 | 85.1 | 266 | 2.14 | 59.1 | 7.8 | 5.41 | 6.89 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/25/2001 | 134 | < 50 | 671 | 921 | 380 | 24.8 | 1370 | 244 | 423 | 541 | 97.4 | 93.2 | 45.4 | < 20 | 32.9 | <20 | <20 | <20 |
| | 7/30/2001 | <100 | < 50 | 336 | 518 | 440 | < 20 | 620 | 113 | 258 | 168 | 49.7 | 40.3 | <20 | < 20 | <20 | <20 | <20 | <20 |
| | 8/27/2002 | <100 | <20 | 550 | 830 | 1000 | 25 | 1300 | 230 | 540 | 390 | 87 | 86 | 38 | 31 | < 50 | <20 | <20 | 21 |
| | 3/27/2003 | <100 | <20 | 830 | 1100 | 1200 | 28 | 2200 | 350 | 900 | 580 | 150 | 140 | 55 | 58 | 50 | <20 | <20 | <20 |
| | 8/26/2003 | <40 | 31 | 180 | 470 | 550 | 9.3 | 310 | 39 | 73 | 59 | 11 | 12 | <8 | <8 | <20 | <8 | <8 | <8 |
| | 2/24/2004 | < 50 | 27 | 250 | 440 | 560 | <10 | 540 | 82 | 190 | 130 | 31 | 32 | 11 | 12 | <30 | <10 | <10 | <10 |
| | 8/25/2004 | <10 | <2 | 130 | 310 | 330 | 8.1 | 140 | 20 | 21 | 12 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/22/2005 | <40 | 35 | 190 | 330 | 460 | <8 | 320 | 50 | 120 | 83 | 18 | 18 | <8 | <8 | <20 | <8 | <8 | <8 |
| | 8/23/2005 | <40 | 35 | 130 | 270 | 420 | <8 | 170 | 26 | 40 | 23 | <8 | <8 | <8 | <8 | <20 | <8 | <8 | <8 |
| | 2/21/2006 | < 50 | 29 | 190 | 370 | 560 | 12 | 260 | 44 | 95 | 54 | 13 | 12 | <100 | <100 | < 300 | <10 | <10 | <100 |
| | 8/22/2006 | < 500 | <100 | 320 | 580 | 150 | <100 | 710 | <100 | 340 | 200 | <100 | <100 | <100 | <100 | < 300 | <100 | <100 | <100 |
| | 10/9/2006 | <10 | 45 | 100 | 200 | 490 | 5.4 | 110 | 15 | 18 | 9 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/21/2006 | < 50 | <10 | 150 | 310 | 350 | <10 | 170 | 24 | 44 | 32 | <10 | <10 | <10 | <10 | <30 | <10 | <10 | <10 |
| | 3/21/2007 | <10 | 24 | 110 | 240 | 430 | 7.8 | 100 | 17 | 23 | 15 | 2.2 | 2.1 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 5/20/2009 | <20 | 46 | 147 | 297 | 467 | 6.184 | 183 | 23.5 | 33.1 | 20.3 | 4.248 | 3.313 | 2.532 | <1.6 | <1.6 | < 2.4 | < 2.4 | < 2.4 |
| | 11/4/2009 | < 200 | 122 | 257 | 254 | 435 | <8 | 239 | <8 | 120 | 89.9 | 31.6 | < 20 | <16 | <16 | 28.3 | <24 | <24 | <24 |
| | 5/4/2010 | <2 | 45.1 | 151 | 280 | 448 | 7.157 | 202 | 26.1 | 42.4 | 22.1 | 3.982 | 2.994 | 2.464 | 0.368 | 3.045 | 0.911 | 0.262 | 0.493 |
| | 10/12/2010 | <100 | 40.2 | 117 | 238 | 486 | <8 | 156 | 17.6 | 31.1 | 18.4 | <10 | <10 | <16 | <16 | <16 | <20 | <16 | <16 |
| | 4/13/2011 | <10 | 1.37 | 164 | 328 | 117 | 8.8 | 201 | 26.6 | 57.1 | 31.7 | 5.77 | 4.65 | 3.36 | <1.6 | 2.32 | <2 | <1.6 | <1.6 |
| | 10/18/2011 | <10 | 34.8 | 77.8 | 176 | 443 | 5.26 | 94.2 | 10.5 | 9.58 | 8.81 | 1.29 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/19/2012 | <10 | <1 | 87.5 | 192 | 244 | 7.91 | 64.3 | 9.97 | 14.4 | 7.85 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/23/2012 | <10 | 32.5 | 70.5 | 144 | 420 | 4.45 | 91.4 | 10.8 | 18.6 | 11.9 | 2.75 | 2 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 5/6/2013 | <10 | 10.6 | 97.8 | 217 | 237 | 7.14 | 88.6 | 10.3 | 12.9 | 7.76 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/3/2013 | <10 | 38.3 | 69.1 | 139 | 187 | 3.27 | 76.8(B) | 7.29 | 10.2(B) | 7.53 | 1.54 | 1.08 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/23/2014 | <10 | <1 | 114 | 218 | 261 | 6.75 | 161 | 24.5 | 47.4 | 30.3 | 5.91 | 5.98 | 1.92 | <1.6 | 2.06 | <2 | <1.6 | <1.6 |
| | 10/8/2014 | <10 | 35.3 | 63.3 | 141 | 261 | 2.91 | 72.2 | 6.19 | 11.3 | 6.95 | 1.82 | 1.6 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/15/2015 | <10 | <1 | 48.2 | 114 | 15 | 4.54 | 26.7 | 3.40 | 8.96 | 4.58 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 11/13/2015 | <10 | 46.4 | 100 | 192 | 403 | 5.47 | 141 | 17.5 | 36.2 | 23.1 | 4.60 | 4.87 | 1.90 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/5/2016 | <10 | <1 | 66.6 | 144 | 146 | 4.52 | 74.9 | 8 | 9.73 | 6.53 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/26/2016 | <10 | 32.9 | 53.6 | 112 | 203 | 3.04 | 57.2 | < 0.08 | 7.66 | 5.4 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/27/2017 | <10 | <1 | 62.6 | 129 | 85.9 | 3.75 | 63 | 7.46 | 10.5 | 6.61 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/26/2017 | <10 | 42 | 73.4 | 147 | 302 | 3.03 | 95.4 | 13.80 | 26.1 | 16.9 | 3.63 | 3.5 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/26/2018 | <10 | <2 | 90.4 | 211 | 141 | 4.3 | 108 | 8.75 | 5.06 | 8.23 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well Date | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |
|--|---|
| 7/14/1999 | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| 10/26/1999 | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| 1/18/2000 | |
| 4/19/2000 | <2 <2 <2 <2 <2 <2 <2 <2 <2 |
| 7/24/2000 | <2 <2 <2 <2 <2 <2 |
| 1/23/2001 | <2 <2 <2 <2 |
| 7/31/2001 | <2 <2 <2 |
| 8/27/2002 | <2 <2 |
| 3/4/2003 | <2 |
| 8/26/2003 | |
| 2/24/2004 | <2 |
| 8/26/2004 | ~~ |
| 2/22/2005 | <2 |
| 8/22/2005 | <2 |
| 2/27/2006 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 |
| 8/24/2006 | <2 |
| 10/5/2006 <10 | <2 |
| 12/20/2006 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 |
| 3/20/2007 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 |
| | <2 |
| 9/25/2008 <2 <0.2 <0.12 <0.12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.0 <0.02 <0.16 <0.16 <0.16 <0.16 <0.24 <0.24 | <2 |
| | < 0.24 |
| 5/26/2009 <2 <0.2 <0.12 <0.12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.0 <0.02 <0.16 <0.16 <0.16 <0.16 <0.24 <0.24 | < 0.24 |
| 11/10/2009 <2 <0.2 <0.12 <0.12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.0 <0.02 <0.16 <0.16 <0.16 <0.16 <0.24 <0.24 | < 0.24 |
| 4/28/2010 <10 <0.2 <0.12 <0.12 <0.2 <0.08 <0.08 <0.08 <0.08 <0.0 <0.2 <0.16 <0.16 <0.16 <0.16 <0.24 <0.24 | < 0.24 |
| $10/7/2010 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | < 0.16 |
| $4/6/2011 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <0$ | < 0.16 |
| $10/11/2011 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad $ | < 0.16 |
| $4/10/2012 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | < 0.16 |
| $10/16/2012 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad $ | < 0.16 |
| $4/30/2013 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | < 0.16 |
| $10/1/2013 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | < 0.16 |
| $4/23/2014 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | < 0.16 |
| $10/9/2014 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | < 0.16 |
| 4/16/2015 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | < 0.16 |
| 11/11/2015 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.0 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | < 0.16 |
| 4/4/2016 <1 <0.1 <0.1 <0.1 <0.08 <0.1 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | .0.1. |
| 10/27/2016 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | < 0.16 |
| 4/27/2017 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | <0.16 <0.16 |
| 10/24/2017 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | |
| 4/25/2018 <1 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 | < 0.16 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well Date | | | | | | | | | | | | | |
|---|--|---|-------------------------|-------------|--------|-------------|--------|-------------|---------------------|-------------|-------------|-------------|-------------------------------------|
| 7/14/1999 | T/Shi) (T/Shi) (T/Shi | (T/gth) (T/gth) (T/gth) (T/gth) (T/gth) (T/gth) (T/gth) (T/gth) | (T/Sth) (T/Sth) (T/Sth) | $(\mu g/L)$ | (µg/L) | $(\mu g/L)$ | (μg/L) | $(\mu g/L)$ | $(\mu g \! / \! L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | ID Sampled Cleanup Levels (µg/L) |
| 10/27/1999 | | | | | | | | | | | | | |
| 1/18/2000 | | | | | | | | | | | | | |
| 4/19/2000 | 2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <10 | 10/27/1999 |
| 7/24/2000 | 2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <10 | 1/18/2000 |
| 1/23/2001 <10 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <10 | 4/19/2000 |
| 7/30/2001 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <10 | 7/24/2000 |
| 8/27/2002 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <10 | 1/23/2001 |
| 3/4/2003 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <10 | 7/30/2001 |
| 8/26/2003 | 2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 8/27/2002 |
| 2/24/2004 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 3/4/2003 |
| 8/26/2004 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 8/26/2003 |
| 2/22/2005 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 2/24/2004 |
| 8/23/2005 < 10 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 8/26/2004 |
| 2/23/2006 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 2/22/2005 |
| 8/24/2006 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 8/23/2005 |
| 10/9/2006 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 2/23/2006 |
| 12/19/2006 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <10 | <2 | <2 | <10 | 8/24/2006 |
| 3/22/2007 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 10/9/2006 |
| 10/17/2008 <2 <0.2 <0.12 <0.12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.02 <0.1 <0.16 <0.16 <0.16 <0.16 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.17 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 12/19/2006 |
| 5/20/2009 <2 <0.2 <0.12 <0.12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.12 <0.16 <0.16 <0.16 <0.16 <0.16 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.25 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 <0.15 | 2 | <2 <2 <2 | <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <10 | 3/22/2007 |
| 11/3/2009 <2 <0.2 <0.12 <0.12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.08 <0.02 <0.16 <0.16 <0.16 <0.16 <0.24 <0.24 | .12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.08 <0.02 <0.16 <0.16 <0.16 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 | <0.2 <0.2 <0.16 | < 0.08 < 0.2 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.04 | < 0.12 | < 0.12 | < 0.2 | <2 | 10/17/2008 |
| | .12 <0.04 <0.08 <0.08 <0.8 <0.08 <0.08 <0.2 <0.2 <0.16 <0.16 <0.16 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 < | <0.2 <0.2 <0.16 | < 0.08 < 0.2 | < 0.08 | < 0.8 | < 0.08 | < 0.08 | < 0.04 | < 0.12 | < 0.12 | < 0.2 | <2 | 5/20/2009 |
| 4/28/2010 <2 <0.2 <0.12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.08 <0.2 <0.16 <0.16 <0.16 <0.24 <0.24 | .12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.08 <0.02 <0.10 <0.16 <0.16 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 <0.24 | <0.2 <0.2 <0.16 | < 0.08 < 0.2 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.04 | < 0.12 | < 0.12 | < 0.2 | <2 | 11/3/2009 |
| | .12 <0.04 <0.08 <0.08 <0.08 <0.08 <0.08 <0.02 <0.2 <0.16 <0.16 <0.16 <0.24 <0.24 | <0.2 <0.2 <0.16 | < 0.08 < 0.2 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.04 | < 0.12 | < 0.12 | < 0.2 | <2 | 4/28/2010 |
| $10/5/2010 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <0$ | $0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <0.$ | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 10/5/2010 |
| $4/5/2011 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <$ | 0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 4/5/2011 |
| $10/11/2011 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad$ | $0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 10/11/2011 |
| $4/11/2012 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad $ | $0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 4/11/2012 |
| $10/16/2012 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad$ | $0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 10/16/2012 |
| 5/7/2013 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | $0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad <0.16 \qquad <0.16 \qquad <0.2 \qquad <0.16 \qquad <$ | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 5/7/2013 |
| 9/30/2013 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | 0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.01 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 9/30/2013 |
| $4/23/2014 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad $ | | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 4/23/2014 |
| 10/8/2014 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 10/8/2014 |
| 4/15/2015 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | 0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 4/15/2015 |
| $11/11/2015 \qquad <1 \qquad <0.1 \qquad <0.1 \qquad <0.1 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.08 \qquad <0.1 \qquad <0.1 \qquad <0.16 \qquad$ | | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 11/11/2015 |
| 4/6/2016 <1 <0.1 <0.1 <0.1 <0.08 <0.1 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | 0.1 <0.08 <0.1 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | <0.1 <0.1 <0.16 | < 0.08 < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.08 | < 0.1 | < 0.1 | < 0.1 | <1 | 4/6/2016 |
| 10/27/2016 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | | | | | | | | | | | | | |
| 4/27/2017 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | | | | | | | | | | | | | 4/27/2017 |
| 10/26/2017 <1 <0.1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.2 <0.16 | | | | | | | | | | | | | |
| $4/26/2018 \qquad <1 \qquad <0.2 | | | | | | | | | | | | | |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | 3 1 7 H I S III E | | | | | | | | | | |
|-------------|--------------------------------|--------------------------|------------------|-------------------------|-----------------------------|--|---|---|--------------------------|--------------------------------|-------------------------|-----------------------------------|-----------------|----------------------------------|-------------------------------------|--|---|----------------------------------|-----------------------------------|
| Cleanup Lev | Date Sampled vels (µg/L) | 1 (T/N Pentachlorophenol | : (To Carbazole* | ουσιου (μg/L) 240 | γ(L) Acenaphthene 370 | $\begin{array}{c} \text{maphthalenc} \\ \text{mg/L} \\ \text{6.2} \end{array}$ | αμου Acenaphthylene (17/2 Acenaphthylene (19/2 Ace | $\begin{array}{c} D \\ D \\ D \\ D \end{array}$ | (1/gμ) (1/gμ) 0081 | (L/gμ). (L/gμ) Fluoranthene | 180 (hg/r) Pyrene | (Lg Benzo [a] anthracene (a. 0.2) | chrysene (hg/L) | [p] Benzo [p] (pg Horauthene 0.2 | (T/β Benzo [k] (T/β fluoranthene | $(\mathbf{L}_{\mathbf{g}}^{\mathbf{g}})$ Benzo [a] byrene $\mathbf{L}_{\mathbf{g}}^{\mathbf{g}}$ | 0.5 (T) | m Dibenzo [a,h] [7] anthracene * | 6 (Z) Benzo [g,h,i] 7 perylene |
| MW-8D | | | | | | | | | | | | | | | | | | | |
| ll . | 7/14/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 10/27/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/18/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 4/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/24/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/23/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/30/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/27/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/4/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| ll . | 8/26/2003 | <10 | <2 | <2 | 3.4 | <2 | <2 | 3.1 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/24/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| ll . | 8/26/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| ll . | 2/22/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| ll . | 2/23/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| ll . | 8/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| ll . | 10/10/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| ll . | 3/22/2007 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 9/26/2008 | <10 | | | | | | | | | | | | | | | | | |
| | | <2 | <2 | < 0.12 | <1.2 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/21/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| ll . | 11/4/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | 0.214 | < 0.08 | 0.231 | 0.09 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/29/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/5/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| ll . | 4/5/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/11/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/11/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/16/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/7/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| II . | 9/30/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| II . | 4/23/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/8/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| II . | 4/15/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| II . | 11/12/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/6/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| II . | 10/27/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | 5.49 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/27/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 10/26/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/26/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | opnenor an | | | | | | | | | | | |
|----------|----------------------------------|-------------------------|---------------------------|---|---------------------|-----------------------------|--|---|-------------------------|--|-------------------------|-----------------------------------|---------------------------|--|------------------------------------|--|---|----------------------------------|---------------------------------------|
| | Date Sampled Levels (µg/L) | 1 (%) Pentachlorophenol | : (T/gm) (T/garbazole* | ου ου ου ου ου (μg/L) 240 | Acenaphthene (μg/L) | Naphthalene $(\mu g/L)$ 6.2 | θο (γ) Acenaphthylene (γ) Acenaphthylene | $\begin{array}{c} L_{\rm gg}(L_{\rm gg}) \\ L_{\rm gg}(L_{\rm gg}) \end{array}$ | (L/gμ) (Mgμ) 0081 | $\begin{array}{c} L_{\rm g} = 1.00 \\ | 180 (hg/L) Syrene | μg/L) 0.2 Benzo [a] anthracene | auasking (μg/L) 9.2 | [p] Benzo [p] (pg/L) (p | (T/gd) (T/gd) (T/dioranthene | $(\mu g L)$ Benzo [a] byrene $(\mu g L)$ | (T) (1,2,3-cd) (T) (P) (T) (D) (T) (D) (T) (T) (T) (T) (T) (T) (T) (T) (T) (T | To Dibenzo [a,h] (Tanthracene ** | 0 (Z) Benzo [g,h,i] O (T) perylene |
| MW-9S | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 10/27/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 4/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/25/2000 | <11 | < 5.5 | < 2.2 | < 2.2 | <2.2 | < 2.2 | <2.2 | <2.2 | <2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | <2.2 | <2.2 |
| | 1/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/27/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/4/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/26/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/26/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/10/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| | 12/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/19/2007 | <10 | <2 | <2 | <2 | <2 | <2 | 4.1 | <2 | 2.5 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/14/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | 0.306 | < 0.08 | 0.338 | 0.16 | 0.226 | < 0.2 | 0.17 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/26/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/10/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/28/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/5/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/12/2012 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/18/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/30/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/3/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/21/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/7/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/14/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 11/13/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/6/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/26/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.086(B) | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/24/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2018 | <1 | <0.2 | <0.2 | <0.2 | <0.2 | < 0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| <u> </u> | T/ 4T/ 4010 | <u></u> | NO.2 | NJ.2 | NO.2 | NO.2 | NU.2 | NJ.2 | NJ.2 | NJ.2 | NO.2 | NU.2 | NJ.2 | NU.2 | NU.2 | NO.2 | √0. ∠ | √0. ∠ | NJ.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | a i i i i i i i | | | | | | | | | | |
|-------------|--------------------------------|-------------------------|---------------------------|-------------------------|------------------|-------------------------------|-----------------------|---|-------------------|--|-------------------------|--|---------------------------|---|-------------------------------------|---|---|-------------------------------------|---------------------------------|
| Cleanup Lev | Date Sampled vels (µg/L) | 1 (%) Pentachlorophenol | : (Tød) (Tød) (Tød) | ουοιου (μg/L) 240 | Acenaphthene 370 | Naphthalene $(\mu g/L)$ 6.2 | 0 Acenaphthylene (17) | $\begin{array}{c} \text{A70} \\ \text{470} \\ \text{470} \end{array}$ | (L/gμ) (Mg/gμ) | $\begin{array}{c} L_{\rm g} = 1.00 \\ | 180 (hg/L) Pyrene | μg La 2.2 Benzo [a] anthracene 0.2 | ouescher (μg/L) 9.2 | (Pg Benzo [b] (Pg fl fl noranthene fl fl noranthene | (T/gm) Benzo [k] (T/gm) Huoranthene | $_{(\mu g)}^{(\mu g)}$ Benzo [a] byrene 0.2 | (T) (1,2,3-cd) (T) (T) (T) (T) (T) (T) (T) (T) (T) (T | The Dibenzo [a,h] The Amthracene ** | θ Benzo [g,h,i] 0 T perylene |
| MW-9D | | | | | | | | | | | | | | | | | | | |
| II . | 7/14/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 0/27/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 1/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 4 | 4/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7 | 7/25/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 1/23/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7 | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8 | 8/27/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/4/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/26/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/26/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II . | 2/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II | 8/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/23/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II . | 8/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II . | 0/10/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| II . | 3/19/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| - | 0/14/2008 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | 0.126 | < 0.08 | 0.12 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/22/2009 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| _ | 1/10/2009 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| II . | 4/29/2010 | <2 | < 0.2 | 0.397 | 0.254 | < 0.04 | < 0.08 | 7.756 | 0.237 | 0.918 | 0.526 | < 0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/4/2010 | <1 | < 0.1 | < 0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/5/2011 | <1 | <0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II . | 0/12/2011 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/12/2012 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 0/17/2012 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <1000 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II . | 4/30/2013 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 10/1/2013 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II . | 4/22/2014 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| II . | 10/7/2014 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II | 4/15/2005 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | <0.16 |
| II . | 1/11/2015 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| II . | 4/6/2016 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | <0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | <0.16 |
| II . | 0/26/2016 | <1 | <0.1 | <0.1 | <0.1 | 0.101(B) | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/25/2017 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 0/24/2017 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | <0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | <0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/24/2017 | <1 <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | <0.16 | <0.16 |
| 4 | 4/24/2UI8 | <1 | <0.2 | <0.2 | <0.2 | <∪.∠ | <∪.∠ | <u.2< td=""><td><∪.∠</td><td><u.2< td=""><td><∪.∠</td><td><∪.∠</td><td><0.∠</td><td><∪.∠</td><td><0.2</td><td><∪.∠</td><td><0.∠</td><td><0.2</td><td><0.∠</td></u.2<></td></u.2<> | <∪.∠ | <u.2< td=""><td><∪.∠</td><td><∪.∠</td><td><0.∠</td><td><∪.∠</td><td><0.2</td><td><∪.∠</td><td><0.∠</td><td><0.2</td><td><0.∠</td></u.2<> | <∪.∠ | <∪.∠ | <0.∠ | <∪.∠ | <0.2 | <∪.∠ | <0.∠ | <0.2 | <0.∠ |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | | | , Old Midia | | | | | | | | |
|-------------|--------------------------------|-------------------------|----------------------|--------|---|---|---------------------------|-------------------------------|-------------------|--|-------------------------|--|---|--|-------------------------------------|---|---|-------------------------------------|---------------------------------|
| Cleanup Lev | Date Sampled vels (μg/L) | 1 (%) Pentachlorophenol | : (T/gat) (T/gat) | ου | Lagrange (Lagrange) (Δ/2) Acenaphthene (2.7) Acena | observed by the second | (L) Acenaphthylene 940 | (L) Phenanthrene Phenanthrene | (L/gμ) (Mg/gμ) | $\begin{array}{c} L_{\rm g} = 1.00 \\ | 180 (hg/L) Pyrene | μg La 2.2 Benzo [a] anthracene 0.2 | oueschu Qr Qr Qr Qr Qr Qr Qr Qr Qr Qr Qr Qr Qr | [p] Benzo [b] (pg/L) (p | (T/β Benzo [k] (T/β fluoranthene | $_{(\mu g)}^{(\mu g)}$ Benzo [a] byrene 0.2 | 0.5 (T) (1,2,3-cd) (T) (D) (D) (D) (D) (D) (D) (D) (D) (D) (D | The Dibenzo [a,h] The Amthracene ** | θ Benzo [g,h,i] 0 T perylene |
| MW-10S | | | | | | | | | | | | | | | | | | | |
| 7 | 7/14/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 10 | 0/27/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1 | 1/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 4 | 4/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7 | 7/25/2000 | <11 | < 5.5 | < 2.2 | < 2.2 | <2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | <2.2 | < 2.2 | < 2.2 | < 2.2 | <2.2 |
| 1 | 1/23/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7 | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8 | 8/28/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3 | 3/4/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/26/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/27/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/25/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10 | 0/10/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12 | 2/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3 | 3/19/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 1 | 10/6/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 5 | 5/21/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 1 | 11/9/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 4 | 4/28/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 1 | 10/6/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/5/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/12/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/11/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/17/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 5 | 5/5/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | 0.239 | < 0.08 | 0.217 | 0.126 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/22/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/9/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/14/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 11 | 1/12/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 0/25/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 0/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | <0.2 | < 0.2 | < 0.2 | < 0.2 | <0.2 | <0.2 |
| 4 | T/ 2-1/ 2010 | <u></u> | ₹0.2 | \U.2 | √0. 2 | \0.2 | \U.2 | NO.2 | \U.2 | \U.2 | \U.2 | NO.2 | NO.2 | \U.2 | \U.2 | \0.2 | ~0. ∠ | \0. ∠ | NO.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | u PAHS III g | , | | | | | | | | | |
|-----------------------|----------------------------------|-------------------------|--------------------------|---------------------------|-----------------------|--------------------|---------------------------------------|------------------------|-------------------|--|---------------|-----------------------|-------------------------------------|--|--|---------------|--|-------------------------------------|-----------------------------|
| Well ID Cleanup | Date Sampled Levels (µg/L) | 1 (%) Pentachlorophenol | (πgh) (T/S Carbazole* | Janorene (µg/L) 240 | A Acenaphthene (Hg/L) | Naphthalene (Hg/L) | (L) Acenaphthylene (P) Acenaphthylene | μg/L) (μg/L) 470 | Anthracene (Δ/gμ) | (L)(Eluoranthene (Σ/C) (L)(Eluoranthene | 180 Pyrene | (µg/L) (0.2) Benzo | ouess. Chrysene (hg/L) 9.2 | (Light Benzo [b] (Light Benzo (b) (Light | (Agusta) Benzo [k] (J/gan) Benzo [k] (D.92 | (µg/L) 0.2 | 7. The following of the control of t | (元) Dibenzo [a,h] (元) anthracene ** | A Benzo [g,h,i] 70 Perylene |
| MW-10D | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 10/27/1999 | <10 | <5 | <2 | <2 | <2 | <2 | 2.9 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 11/22/1999 | <11 | <5.5 | <2.2 | <2.2 | <2.2 | <2.2 | < 2.2 | <2.2 | <2.2 | < 2.2 | < 2.2 | < 2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 |
| | 1/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 4/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/25/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/23/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/28/2002 | <10 | <2 | 4 | 4.8 | <2 | <2 | <2 | <2 | 2.6 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/4/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/26/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/23/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/25/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/11/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/19/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/6/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/21/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/9/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | 0.238 | 0.146 | < 0.2 | < 0.02 | < 0.16 | 0.172 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/29/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/6/2010 | <1 | < 0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/5/2011 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/12/2011 | <1 | < 0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/11/2012 | <1 | < 0.1 | <0.1 | < 0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/17/2012 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 5/5/2013 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | 0.131 | < 0.08 | 0.158 | 0.083 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 10/1/2013 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/22/2014 10/9/2014 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | | <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/15/2015 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 11/12/2015 4/5/2016 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 10/25/2016 | <1 <1 | <0.1 <0.1 | <0.1 | <0.1 <0.1 | <0.08 | <0.1 | <0.08 <0.08 | <0.08 <0.08 | <0.08 <0.08 | <0.08 | <0.1 <0.1 | <0.1 <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 <0.2 | <0.16 <0.16 | < 0.16 |
| | 4/25/2016 | | | <0.1 | <0.1 | <0.08 | <0.08 | | | | <0.08 | | | < 0.16 | < 0.16 | < 0.16 | | | < 0.16 |
| | 10/25/2017 | <1 | <0.1 | <0.1 | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/24/2018 | <1 <1 | <0.1 <0.2 | <0.1 <0.2 | <0.1 <0.2 | <0.08 <0.2 | <0.08 <0.2 | <0.08 <0.2 | <0.08 <0.2 | <0.08 <0.2 | <0.08 <0.2 | <0.1 <0.2 | <0.1 <0.2 | <0.16 <0.2 | <0.16 <0.2 | <0.16 <0.2 | <0.2 <0.2 | <0.16 <0.2 | <0.16 <0.2 |
| L | 4/24/2010 | <1 | <0.2 | <0.2 | <0.∠ | <0.2 | <∪.∠ | <0.∠ | <0.∠ | <0.∠ | <0.∠ | <0.∠ | <0.2 | <0.2 | <0.2 | <0.∠ | <∪.∠ | <∪.∠ | <0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | | | , ота типана | | | | | | | | |
|-----------------------|----------------------------------|-------------------------|-------------------|--------------------------------|-----------------------|------------------------------|---------------------------|------------------------|-------------------|-----------------------------------|------------------------|------------------------|--------------------------|---------------------------|--|---|----------------------------------|-------------------------------------|--|
| Well ID Cleanup | Date Sampled Levels (µg/L) | 1 (7) Pentachlorophenol | -: (π) Carbazole* | ouelone Ly (µg/L) 240 | A Acenaphthene (hg/L) | Naphthalene (µg/L) 6.2 | (T/A Acenaphthylene (T/A) | (hg/T) Phenanthrene | Anthracene (J/gµ) | (L) Fluoranthene (L) Fluoranthene | 180 (µg/L) Arene | μg/L) (μg/L) 0.2 | oupscue (µg/L) 9.2 | (P] Benzo [b] (Hg/L) (D.2 | (Hg/L) Benzo [k] (Lg/L) | (12) Benzo [a] byrene (0.2) Denzo [a] byrene | 7.0 (1,2,3-cd] 7.7 (1,2,3-cd) | The Dibenzo [a,h] The Amthracene ** | 7. Benzo [g,h,i] 7. Perylene 7. perylene |
| MW-12S | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 10/27/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/19/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 4/20/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/25/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/24/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/30/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/27/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/3/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/26/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/24/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/25/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/25/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/11/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/20/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/7/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/11/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/17/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/7/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/21/2014 | | ooded below | - | - | | | • | | | | | | | | | | | |
| | 10/7/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/13/2015 | | ooded below | - | • | | | • | | | | | | | | | | | |
| | 11/10/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/6/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/26/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/27/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/24/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | d I / III s III s | | | | | | | | | | |
|----------|---------------------------------|-------------------------|-------------------------|------------------------|----------------------------------|-------------------------|--|-----------------------|-------------------|--|------------------------|-------------------------|--|--|-----------------------------------|-------------------------|---|-----------------|---------------------------------|
| - | Date Sampled ævels (µg/L) | 1 (2) Pentachlorophenol | -i σπ) (T/Carbazole* | enene (µg/L) 240 | V _(μg/L) Acenaphthene | Naphthalene $(\mu g/L)$ | 0 Acenaphthylene (17) Acenaphthylene (19) Acenaphthylene | (µg/L) Wenanthrene | Anthracene (7/ga) | Elnoranthene Fluoranthene Fluoranthene | 180 (J/ga) - Ayrene | (µg/L) (µg/L) 0.2 | operation of the control of the cont | (Light Benzo [b] (Light Benzo [p] (Light Benzo (p) (Light | (T/gm) Benzo [k] (L) fluoranthene | (µg/L) (µg/L) 0.2 | (T) | (Tanthracene * | 7 Benzo [g,h,i] O T perylene |
| MW-16S | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 10/28/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/19/2000 | 66.2 | 73.6 | 1860 | 2710 | 2460 | 20 | 5520 | 788 | 2390 | 1780 | 320 | 152 | 65 | 29 | 47 | 16.2 | 6.85 | 14 |
| | 4/20/2000 | <100 | < 50 | <20 | < 20 | < 20 | <20 | < 20 | <20 | <20 | <20 | <20 | <20 | < 20 | < 20 | <20 | < 20 | < 20 | <20 |
| | 7/26/2000 | <11 | <5.5 | < 2.2 | < 2.2 | <2.2 | < 2.2 | <2.2 | < 2.2 | <2.2 | < 2.2 | < 2.2 | < 2.2 | <2.2 | <2.2 | < 2.2 | < 2.2 | < 2.2 | <2.2 |
| | 1/24/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/28/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 2.6 | 2.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/4/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/26/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/30/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/24/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/25/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/24/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/28/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/12/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 9/30/2008 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/19/2009 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/2/2009 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/28/2010 | <2 | < 0.2 | 2.029 | <1.714 | 0.049 | < 0.08 | 6.395 | < 0.981 | 2.471 | 1.215 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/6/2010 | <1 | < 0.1 | < 0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/6/2011 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/16/2011 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/16/2012 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/21/2012 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 5/1/2013 | <1 | < 0.1 | 2.04 | 1.88 | < 0.08 | < 0.08 | 7.76 | 0.538 | 1.66 | 0.817 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 10/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/21/2014 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 10/7/2014 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/14/2015 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 11/11/2015 | <1 | <0.1 | 0.164 | 0.238 | < 0.08 | < 0.08 | 0.188 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/4/2016 | <1 | < 0.1 | <0.1 | < 0.1 | 0.091 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/26/2016 | <1 | <0.1 | <0.1 | <0.1 | 0.081(B) | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/25/2017 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 10/24/2017 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/24/2018 | <1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.2 | <0.2 | <0.0 | <0.2 | <0.0 | <0.1 | <0.1 | <0.10 | <0.10 | <0.10 | <0.2 | <0.10 | <0.10 |
| <u> </u> | 4/24/2010 | <u></u> | \U. ∠ | \U. ∠ | \U. ∠ | <0. ∠ | \0. ∠ | < 0.∠ | \U. ∠ | < 0.∠ | \U. ∠ | < 0.∠ | \U. ∠ | \0. ∠ | \0. ∠ | < 0.∠ | <0.∠ | <0. ∠ | ₹0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well Date ID Sampled Cleanup Levels (μg/L) | 1 (T Pentachlorophenol | - '' (Τ'βπ') (Τ'β Carbazole** | eueueueueueueueueueueueueueueueueueueu | (L) Acenaphthene (A) Acenaphthene (B) (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B | (μg/L) (μg/L) 6.2 | n) Acenaphthylene (77) Acenaphthylene | (L) Dhenanthrene 440 | Anthracene (A/gµ) | (Lg/L) Fluoranthene (1/200) | (µg/L) | (μg/L) 0.2 | Chrysene (hg/L) | μ Benzo [b] (μ guoranthene 0.2 | (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) | 0.2 (a] pyrene 0.2 (a) pyrene | 7.0 m Indeno [1,2,3-cd] (T) pyrene | 市 Dibenzo [a,h] | 전 전 70 (T) perylene |
|--|------------------------|----------------------------------|--|--|-------------------------|---------------------------------------|----------------------|-------------------|-----------------------------|--------|---------------|-----------------|--------------------------------|--|----------------------------------|------------------------------------|-----------------|---------------------------|
| MW-16D | | | | | | | | | | | | | | | | | | |
| 10/16/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12/20/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/21/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 9/30/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 5/19/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 11/3/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 4/28/2010 | <2 | < 0.2 | 0.443 | 0.433 | < 0.04 | < 0.08 | 8.595 | 0.185 | 0.871 | 0.455 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 10/6/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/6/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/16/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/21/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 5/1/2013 | <1 | < 0.1 | 5.18 | 5.29 | < 0.08 | 0.092 | 12.7 | 0.75 | 1.72 | 1.17 | 0.185 | 0.172 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/2/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/21/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/7/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/14/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 11/11/2015 | <1 | < 0.1 | < 0.1 | 0.111 | < 0.08 | < 0.08 | 0.098 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/4/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/25/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/24/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/24/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | rophenor an | | | | | | | | | | | |
|---|-------------|-----------------------------|--------------------------|-----------------------|---|---|---|-------------------|------------------------------|-------------------------|------------------------------------|-----------------|--|--------------------------------|--|--|----------------------------------|-----------------|
| Well Date ID Sampled Cleanup Levels (µg/I | | (T/Sπ) (T/Carbazole* | enorene (μg/L) 240 | γ(L) Acenaphthene 370 | $\begin{array}{c} \text{constant}\\ \text{Maphthalenc}\\ (\mu g/L)\\ 6.2 \end{array}$ | (T/S Acenaphthylene (T/S Acenaphthylene | μς Δη (μς/Ση Απου Απου Απου Απου Απου Απου Απου Απου | (L/gμ) (Mg/gμ) | $(L/g\mu)$ Eluoranthene 1500 | 180 (Mg/L) Pyrene | (L) Benzo [a] anthracene 0.2 | chrysene (hg/L) | (b) Benzo [b] (c) (d) Benzo [b] (d) (e) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e | (T/gm) Benzo [k] (Tluoranthene | $(\mu g)^{(a)}$ Benzo [a] byrene $(0.2)^{(a)}$ | (T) (12,3-cd) (T) (T) (T) (T) (T) (T) (T) (T) (T) (T | m Dibenzo [a,h] [T] Anthracene * | A Benzo [g,h,i] |
| MW-17S | | | | | | | | | | | | | | | | | | |
| 7/15/1999 | | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 10/28/199 | 99 <10 | <5 | 2.05 | <2 | <2 | <2 | 2.87 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1/16/2000 | 0 <10 | <5 | 6.97 | <2 | <2 | <2 | 15.4 | <2 | <2 | 2.93 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 4/20/2000 | 0 <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7/25/2000 | 0 <11 | <5.5 | < 2.2 | < 2.2 | <2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | < 2.2 | <2.2 |
| 1/24/200 | 1 <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7/31/200 | 1 <10 | <5 | <2 | <2 | 3.47 | <2 | 2.38 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8/28/2002 | 2 31 | <2 | 3.2 | <2 | 3.3 | <2 | 8.2 | <2 | <2 | 2.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/4/2003 | 3 17 | <2 | <2 | <2 | <2 | <2 | 2.4 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/27/2003 | 3 16 | <2 | 2.3 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/26/2004 | 4 <10 | <2 | 5.1 | <2 | <2 | <2 | 7.6 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/30/2004 | 4 <10 | <2 | 3.6 | <2 | <2 | <2 | 3.7 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/24/2005 | | <2 | 6.2 | <2 | <2 | <2 | 9.7 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/25/2005 | | <2 | 8 | 2.8 | <2 | <2 | 13 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/27/2006 | | <2 | 9.6 | 2.1 | 2 | <2 | 12 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/29/2006 | | <2 | 9.5 | 2.3 | 2 | <2 | 12 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10/12/200 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12/18/200 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/20/200 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 9/25/2008 | | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 5/20/2009 | | <0.2 | 0.162 | <0.12 | < 0.04 | <0.08 | <0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 11/4/2009 | | <0.2 | <0.102 | <0.12 | < 0.04 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | <0.24 |
| 5/4/2010 | | <0.2 | <0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | <0.24 |
| 10/11/201 | | <0.1 | 0.106 | <0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.24 | < 0.16 | < 0.16 |
| 4/11/201 | | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | 0.162 | <0.08 | 0.252 | 0.16 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| 10/17/201 | | <0.1 | 0.237 | <0.1 | < 0.08 | < 0.08 | < 0.102 | <0.08 | < 0.08 | < 0.10 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| 4/12/2012 | | <0.1 | < 0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| 10/22/201 | | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| 5/5/2013 | | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | 0.249 | <0.08 | 0.165 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | < 0.16 |
| 10/2/2013 | | <0.1 | 0.235 | 0.15 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | | <0.16 | <0.2 | < 0.16 | |
| 4/22/2014 | | <0.1 | < 0.1 | < 0.13 | <0.08 | < 0.08 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | <0.16 <0.16 | <0.16 | <0.2 | < 0.16 | <0.16 <0.16 |
| 10/7/2014 | | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | <0.16 |
| 4/14/2015 | | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | | <0.16 | <0.2 | < 0.16 | <0.16 |
| 11/11/201 | | <0.1 | <0.1 <0.1 | <0.1 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 <0.1 | <0.16 | <0.16 <0.16 | <0.16 | <0.2 | <0.16 | <0.16 |
| 4/5/2016 | | <0.1 | | <0.1 | | | | | | | | | | | | | | |
| 10/25/201 | | | <0.1 | | <0.08 | < 0.1 | < 0.08 | <0.08 | <0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | | <0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | < 0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 4/27/2017 | | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 10/25/201 | | <0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 4/25/2018 | 8 <1 | < 0.2 | < 0.2 | 1.75 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well | Date | Pentachlorophenol | Carbazole* | Fluorene | Acenaphthene | Naphthalene | Acenaphthylene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo [a] anthracene | Chrysene | Benzo [b] | Benzo [k] fluoranthene | Benzo [a] pyrene | Indeno [1,2,3-cd] pyrene | Dibenzo [a,h] anthracene * | Benzo [g,h,i] perylene |
|--------------|------------|-------------------|-------------|----------|--------------|-------------|----------------|--------------|------------|--------------|--------|----------------------|----------|-----------|------------------------|------------------|--------------------------|----------------------------|---------------------------|
| | Sampled | (μg/L) | $(\mu g/L)$ | (μg/L) | (μg/L) | (μg/L) | (µg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (µg/L) | (μg/L) |
| Cleanup Leve | els (µg/L) | 1 | | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 470 |
| MW-18S | | | | | | | | | | | | | | | | | | | |
| 7. | //21/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 10 | 0/28/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1, | /20/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 5.52 | 5.79 |
| 4, | /20/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7. | 7/26/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | /24/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7. | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8, | 3/28/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 2.6 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3, | 3/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 3/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2. | 2/26/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 3/30/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2. | 2/24/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 3/25/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2. | 2/27/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 3/29/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10 | 0/16/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12 | 2/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3, | 3/20/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 5, | 5/21/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 1 | 1/4/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 4, | 1/28/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 10 | 0/7/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/6/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4, | /12/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/18/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 5 | 5/6/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4, | 1/22/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/8/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4, | 1/14/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 11 | 1/12/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/5/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/25/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.115(B) | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4, | 1/26/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4, | /26/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID | Date Sampled | π') (7) Pentachlorophenol | (αrbazole* | Llnorene (Τ/S/H | (T) Acenaphthene | ரே (T/Naphthalene | (T) Acenaphthylene | /γ Phenanthrene | (Τ/δπ) (T/δπ) | (T) Fluoranthene | (T/Sm) | (T) Benzo [a] anthracene | (T/an) (T/an) | Уб (T) fluoranthene | /б Т fluoranthene | (T) Benzo [a] pyrene | ள் நே Indeno [1,2,3-cd] ரே pyrene | Dibenzo [a,h] anthracene * | Benzo [g,h,i] (T perylene |
|-------------|-----------------|------------------------------|------------|-----------------|------------------|----------------------|--------------------|-----------------|------------------|------------------|---------------|-----------------------------|------------------|------------------------|----------------------|-------------------------|---|-----------------------------|------------------------------|
| - | - | | | (μg/L) 240 | (μg/L) 370 | | (μg/L) 940 | (μg/L) 470 | (μg/L) 1800 | | (μg/L) 180 | (μg/L) 0.2 | (μg/L) 9.2 | | (μg/L) 0.92 | (μg/L) 0.2 | (μg/L) 0.2 | | (μg/L) 470 |
| Cleanup Lev | veis (µg/L) | 1 | | 240 | 3/0 | 6.2 | 940 | 4/0 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 4/0 |
| MW-18D | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| III . | 0/28/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/20/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 4/20/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/26/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| III . | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/28/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 2.6 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/4/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3 | 8/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/26/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/30/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/24/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/25/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2 | 2/27/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8 | 8/29/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 1 | 0/16/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 1 | 2/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3 | 3/20/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 1 | 10/1/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.8 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 5 | 5/21/2009 | < 0.2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 1 | 11/4/2009 | <2 | < 0.2 | 0.572 | 0.736 | 0.207 | < 0.08 | 1.264 | 0.169 | 0.406 | 0.216 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 2 | 4/29/2010 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 1 | 10/7/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/6/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 0/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/16/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 0/21/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/6/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | 0.108 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 10/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/22/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 10/8/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 2 | 4/14/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 1/12/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 0/25/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 2 | 4/26/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 1 | 0/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/26/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| ī- | | | | | | | | | | | | | | | | | | |
|--|--------------------------|-----------------|---------------------------|------------------------|-----------------------------|---|--------------|------------------------------|---------------------------|------------------------|---|---------------------------|----------------------------|---------------------------|--------------------------------|-------------------------------------|----------------------------------|-----------------------------------|
| Well Date ID Sampled Cleanup Levels (µg/L) | 1 (T/S Pentachlorophenol | (T/δ Carbazole* | ου ΣΕ (μg/L) 240 | (μg/L) Acenaphthene | $(\mu g/L)$ Naphthalene 6.2 | αμος (Agguera) | μg/L) A70 | $(J_{g\mu})$ Anthracene 0081 | (J/gm) Huoranthene (1500) | 180 (μg/L) γγene | μg/Z (L) Benzo [a] anthracene 0.2 | onescenc (μg/L) 9.2 | Benzo [b] (μg/L) 0.2 | Benzo [k] fluoranthene | (µg/L) Benzo [a] byrenc (ng/L) | 0.5 gm Indeno [1,2,3-cd] (1,2,3-cd] | m Dibenzo [a,h] [7] anthracene * | 0.45 Benzo [g,h,i] (T/perylene |
| MW-19S | | | | | | | | | | | | | | | | | | |
| 7/15/1999 | <10 | <5 | <2 | <2 | <2 | <2 | 2.11 | <2 | 2.45 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 10/28/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1/20/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 4/20/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7/26/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 1/24/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8/28/2002 | <10 | <2 | 4.6 | 4.8 | <2 | <2 | 8.4 | <2 | 7 | 4.6 | <2 | <2 | <2 | <2 | <5 | 2.8 | 2.6 | <2 |
| 3/4/2003 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/27/2003 | <10 | <2 | 2.1 | <2 | <2 | <2 | <2 | <2 | 3.7 | 3.4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/26/2004 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/31/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/25/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/26/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/27/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/29/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10/16/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/20/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 9/26/2008 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | <0.24 |
| 5/20/2009 | <2 | <0.2 | 0.12 | 0.12 | <0.04 | <0.08 | 0.732 | 0.107 | 0.498 | 0.328 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | <0.24 | <0.24 |
| 11/3/2009 | <2 | <0.2 | 0.278 | 0.182 | 0.051 | <0.08 | 0.732 | < 0.107 | 0.498 | < 0.08 | <0.2 | <0.2 | <0.16 | | < 0.16 | < 0.24 | <0.24 | |
| 4/29/2010 | <20 | <2 | 28.8 | | | | 1.457 | 2.722 | | | <2 | <2 | | < 0.16 | | <2.4 | | <0.24 <2.4 |
| II | | | | 88.1 | 1.433 | 2.096 | | | 3.828 | 1.541 | | | <1.6 | <1.6 | <1.6 | | <2.4 | l l |
| 10/11/2010 | <1 | <0.1 | < 0.1 | < 0.1 | <0.08 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | <0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 4/7/2011 | <1 | <0.1 | 0.197 | 0.179 | <0.08 | <0.08 | 0.57 | 0.135 | 0.619 | 0.333 | 0.11 | <0.1 | <0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 10/16/2011 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | <0.08 | < 0.08 | <0.08 | <0.08 | <0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 4/17/2012 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.1 | <0.1 | <0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 10/22/2012 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.1 | < 0.1 | < 0.16 | <0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 5/5/2013 | <1 | <0.1 | <0.1 | <0.1 | <0.08 | <0.08 | 0.143 | <0.08 | 0.185 | <0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | < 0.16 | <0.16 |
| 10/2/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| 4/21/2014 | <1 | <0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| 10/7/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | <0.16 |
| 4/14/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 11/11/2015 | <1 | < 0.1 | 0.204 | < 0.1 | < 0.08 | < 0.08 | 0.515 | 0.198 | 0.101 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/5/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.091 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/26/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.114 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/26/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/25/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| _ | | | | | | | | rophenor and | | | | | | | | | | | |
|-------------|--------------------------------|--------------------------|-------------------------------|------------------------|-------------------------------|--------------------|------------------------|-------------------------------------|-------------------|---------------------------------------|-------------------------|-------------------------|--|--|-------------------------------------|-------------------------|---|----------------|-------------------------------|
| Cleanup Lev | Date Sampled rels (µg/L) | 1 (T/) Pentachlorophenol | -i (π/6π) (π/6π) (π/6π) | ouene (µg/L) 240 | V A V A V (μg/L) 370 | Naphthalene (µg/L) | 0 A/δπ) Acenaphthylene | (T/S Phenanthrene (T/S Phenanthrene | V Authracene 0081 | (Lgu) Fluoranthene (Lgu) Fluoranthene | 180 (µg/L) Pyrene | (µg/L) (µg/L) 0.2 | operation of the control of the cont | [q] Benzo [p] (L) (Q) (Q) (Q) (Q) (Q) (Q) (Q) (Q) (Q) (Q | (Hg/L) Benzo [k] (Hg/L) Unoranthene | (µg/L) (µg/L) 0.2 | $\begin{array}{c} \begin{array}{c} \text{m} \\ \text{fig} \\ \text{T} \end{array} \begin{array}{c} \text{monoid} \\ \text{T} \end{array}$ | (Tanthracene * | 7 Benzo [g,h,i] 7 perylene |
| MW-19D | | | | | | | | | | | | | | | | | | | |
| 7 | 7/15/1999 | <100 | < 50 | 258 | 276 | <20 | <20 | 673 | 213 | 654 | 414 | 125 | 110 | 49.2 | 32.3 | 41.9 | <20 | <20 | <20 |
| 10 | 0/28/1999 | <10 | <5 | 2 | 5.72 | <2 | <2 | 7.4 | 5.4 | 83.5 | 76.4 | 19.1 | 17.3 | 9.88 | 3.32 | 6.53 | <2 | <2 | <2 |
| 1 | /20/2000 | <10 | <5 | 8.28 | 6.58 | <2 | <2 | 54.6 | 30.6 | 362 | 244 | 73.7 | 76.4 | 32.4 | 17.3 | 23.6 | 10 | 5.53 | <2 |
| 4 | 1/20/2000 | <10 | <5 | 3.28 | 12.6 | <2 | <2 | <2 | <2 | 29 | 21.6 | 6.29 | 5.27 | 3.22 | <2 | 2.22 | <2 | <2 | <2 |
| 7 | 7/26/2000 | <10 | <5 | 3.47 | 12.8 | <2 | <2 | 6.19 | 4.03 | 92.5 | 66.7 | 17.3 | 17.4 | 9.35 | 3.43 | 6.17 | 4.76 | <2 | 4.79 |
| 1 | 1/24/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7 | 7/31/2001 | <10 | <5 | 30.2 | 39.5 | <2 | <2 | 31.3 | 15.5 | 50.1 | 37 | 12.2 | 12.4 | 6.83 | 5.59 | 4.64 | <2 | <2 | <2 |
| 8 | 8/28/2002 | <10 | 2.3 | 37 | 52 | <2 | <2 | 31 | 13 | 34 | 24 | 5.4 | 5.6 | 2.3 | 2.9 | <5 | 2.1 | <2 | 2.3 |
| | 3/4/2003 | <10 | <2 | 39 | 61 | <2 | <2 | 31 | 17 | 67 | 52 | 12 | 12 | 4.4 | 3.7 | <5 | <2 | <2 | <2 |
| | 3/27/2003 | <10 | <2 | 26 | 36 | <2 | <2 | 4.1 | 10 | 18 | 16 | 2.3 | 2.4 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/26/2004 | <10 | <2 | 13 | 19 | <2 | <2 | 4.2 | 5.9 | 12 | 7.9 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/31/2004 | <10 | <2 | 4.7 | 8 | <2 | <2 | <2 | 4 | 7.1 | 4.5 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2005 | <10 | <2 | 15 | 19 | <2 | <2 | 5.7 | 7.2 | 14 | 9.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/26/2005 | <10 | <2 | 5.2 | 7.1 | <2 | <2 | 2.5 | 3 | 7.3 | 3.7 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/27/2006 | <10 | <2 | 15 | 22 | <2 | <2 | 4.2 | 6.2 | 13 | 7.9 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/29/2006 | <10 | <2 | 18 | 24 | <2 | <2 | 4.5 | 8.1 | 18 | 11 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 0/18/2006 | <10 | <2 | <2 | 3.9 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/19/2006 | <10 | <2 | <2 | 4.6 | <2 | <2 | 3.6 | 2.6 | 6.7 | 5.2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/20/2007 | | <2 | <2 | 2.5 | <2 | <2 | <2 | <2 | 2.4 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 9/29/2008 | <10 | | | | | | | | | | | | | | | | | |
| | | <2 | < 0.2 | < 0.12 | 0.868 | < 0.04 | < 0.08 | < 0.08 | 0.398 | 1.284 | 0.838 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| - | 5/20/2009 | <2 | < 0.2 | 0.397 | 1.444 | < 0.04 | < 0.08 | 0.724 | 0.663 | 2.032 | 1.267 | <0.2 | 0.207 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 1/3/2009 | <2 | < 0.2 | 1.59 | 2.6 | 0.064 | < 0.08 | 3.259 | 1.178 | 3.638 | 2.517 | 0.707 | 0.571 | < 0.16 | 0.241 | 0.371 | < 0.24 | < 0.24 | < 0.24 |
| | 5/4/2010 | <2 | < 0.2 | 0.279 | 1.598 | 0.051 | 0.107 | 0.34 | 0.344 | 0.1598 | 0.859 | 0.455 | 0.319 | 0.424 | < 0.16 | 0.301 | < 0.24 | < 0.24 | < 0.24 |
| | 0/11/2010 | <1 | < 0.1 | 0.24 | 1.01 | < 0.08 | < 0.08 | 0.396 | 0.419 | 1.64 | 1.13 | 0.209 | 0.256 | 0.369 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/7/2011 | <1 | < 0.1 | 0.553 | 1.58 | < 0.08 | < 0.08 | 0.942 | 0.468 | 2.05 | 1.27 | 0.31 | 0.289 | 0.219 | < 0.16 | 0.174 | < 0.2 | < 0.16 | < 0.16 |
| | 0/17/2011 | <1 | < 0.1 | < 0.1 | 0.593 | < 0.08 | < 0.08 | 0.131 | 0.204 | 1.3 | 0.798 | 0.246 | 0.23 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 1/17/2012 | <1 | < 0.1 | 0.822 | 1.68 | < 0.08 | < 0.08 | 0.331 | 0.241 | 0.921 | 0.547 | 0.134 | 0.151 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | <0.16 |
| | 0/22/2012 | <1 | < 0.1 | 0.25 | 0.741 | < 0.08 | < 0.08 | 0.16 | 0.638 | 6.06 | 4.37 | 1.76 | 1.35 | 0.922 | < 0.16 | 0.742 | 0.47 | 0.17 | 0.295 |
| | 5/5/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/2/2013 | <1 | < 0.1 | 0.269 | 0.478 | < 0.08 | < 0.08 | 0.772(B) | 0.326 | 1.4 | 0.98 | 0.295 | 0.238 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 1/22/2014 | <1 | 0.283 | 5.97 | 5.51 | 0.113 | 0.238 | 10.6 | 4.39 | 25.1 | 14.4 | 4.21 | 3.63 | 1.01 | < 0.16 | 1.63 | 0.471 | < 0.16 | 0.439 |
| | 10/7/2014 | <1 | 0.186 | 5.02 | 4.86 | < 0.08 | 0.245 | 12.3 | 5.44 | 32.7 | 18.6 | 5.85 | 5.43 | 2.27 | < 0.16 | 2.04 | 0.539 | 0.189 | 0.486 |
| | 1/14/2015 | <1 | < 0.1 | 1.20 | 1.40 | < 0.08 | < 0.08 | 0.988 | 0.524 | 1.36 | 0.782 | 0.223 | 0.184 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 1/13/2015 | <1 | < 0.1 | 0.309 | 0.549 | < 0.08 | < 0.08 | 0.951 | 0.359 | 1.40 | 0.961 | 0.253 | 0.314 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | <1 | < 0.1 | 0.940 | 1.260 | < 0.08 | < 0.1 | 1.57 | 0.348 | 0.91 | 0.637 | < 0.1 | 0.164 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | 0.158 | < 0.16 |
| 10 | 0/26/2016 | <1 | < 0.1 | 0.954 | 1.10 | 0.129 | < 0.08 | 2.45 | 0.590 | 2.93 | 2.39 | 0.682 | 0.668 | < 0.16 | < 0.16 | 0.216 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 1/26/2017 | <1 | < 0.1 | 2.13 | 2.70 | < 0.08 | 0.09 | 2.85 | 0.810 | 2.25 | 1.56 | 0.644 | 0.630 | 0.264 | < 0.16 | 0.273 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/25/2017 | <1 | < 0.1 | 0.61 | 0.67 | < 0.08 | < 0.08 | 2.38 | 0.606 | 3.62 | 2.43 | 0.942 | 0.905 | 0.257 | 0.207 | 0.35 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 1/25/2018 | <1 | < 0.2 | 0.68 | 0.95 | < 0.2 | < 0.2 | 0.33 | < 0.2 | 0.76 | 0.38 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well | Date | Pentachlorophenol | Carbazole* | Fluorene | Acenaphthene | Naphthalene | Acenaphthylene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo [a] anthracene | Chrysene | Benzo [b] fluoranthene | Benzo [k] fluoranthene | Benzo [a] pyrene | Indeno [1,2,3-cd] pyrene | Dibenzo [a,h] anthracene * | Benzo [g,h,i] ! perylene |
|-----------|---------------|-------------------|------------|----------|--------------|-------------|----------------|--------------|------------|--------------|--------|----------------------|----------|---------------------------|---------------------------|------------------|-----------------------------|-------------------------------|-----------------------------|
| ID | Sampled | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (μg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (μg/L) | (µg/L) | (µg/L) | (μg/L) |
| Cleanup l | Levels (µg/L) | 1 | | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 470 |
| MW-20S | | | | | | | | | | | | | | | | | | | |
| | 7/15/1999 | <10 | <5 | 34.5 | 39.1 | <2 | <2 | 46.8 | 16.9 | 36.3 | 27.5 | 5.78 | 6.35 | 2.65 | <2 | 2.34 | <2 | <2 | <2 |
| | 10/28/1999 | <10 | <5 | <2 | 2.89 | <2 | <2 | <2 | <2 | 5.11 | 4.66 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/20/2000 | <10 | <5 | 3.13 | 4.5 | <2 | <2 | 6.87 | <2 | 3.3 | 5.67 | <2 | <2 | <2 | <2 | <2 | <2 | 4.54 | <2 |
| | 4/24/2000 | <10 | <5 | <2 | 2.04 | <2 | <2 | 29 | <2 | 3.56 | 3.1 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/26/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/25/2001 | 29.5 | <5 | 13 | 23.1 | 21.7 | <2 | 3.23 | <2 | <2 | 2.5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/31/2001 | 10.6 | <5 | 9.28 | 17.8 | 3.73 | <2 | 3.29 | <2 | 3.15 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/28/2002 | <10 | <2 | 14 | 21 | 4.7 | <2 | 6.8 | 4.5 | 14 | 12 | 3.8 | 3.7 | 2.7 | 2.5 | <5 | 6.6 | <2 | 7.5 |
| | 3/4/2003 | 32 | 3 | 38 | 61 | 25 | 2.5 | 14 | 5.2 | 9.8 | 8.3 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | 22 | <2 | 17 | 26 | <2 | <2 | 7.1 | 2.7 | 4.4 | 3.6 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/27/2004 | <10 | <2 | 7.8 | 16 | <2 | <2 | <2 | <2 | 2.1 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/31/2004 | 95 | 3.6 | 27 | 45 | <2 | <2 | 15 | 3.4 | 2.9 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2005 | 21 | 2.7 | 51 | 65 | <2 | 2.2 | 24 | 8.6 | 9.2 | 5.4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/26/2005 | 22 | <2 | 19 | 30 | <2 | <2 | 5 | 2.8 | 4.5 | 2.2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/27/2006 | 34 | 2.9 | 6.4 | 78 | 2.5 | 2.8 | 81 | 13 | 16 | 9.4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/29/2006 | 61 | 4.9 | 6.2 | 91 | <2 | 3.6 | 49 | 8.7 | 10 | 5.2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/18/2006 | <10 | <2 | <2 | 9.5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/20/2006 | <10 | <2 | <2 | 3.7 | <2 | <2 | <2 | <2 | 3.8 | 3.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/21/2007 | <10 | <2 | <2 | 7.7 | <2 | <2 | 5.9 | <2 | | 4.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 5/18/2009 | | <0.2 | 6.168 | | | | 3.9 16 | | 6.6 | | | 1.144 | | 0.226 | | <0.24 | | |
| | | <2 | | | 8.31 | 0.046 | 0.251 | | 2.98 | 8.585 | 5.361 | 1.167 | | < 0.16 | | 0.281 | | < 0.24 | < 0.24 |
| | 11/3/2009 | <2 | <0.2 | 1.878 | 2.517 | < 0.04 | < 0.08 | 4.138 | < 0.08 | 2.094 | 1.451 | 0.533 | 0.364 | < 0.16 | < 0.16 | 0.364 | < 0.24 | < 0.24 | <0.24 |
| | 4/28/2010 | <20 | <2 | 22.5 | 23.6 | 0.413 | 1.045 | 51.1 | 7.678 | 25.1 | 14.4 | 3.865 | 2.998 | 3.929 | 1.6 | 1.927 | 2.4 | <2.4 | <2.4 |
| | 10/6/2010 | <1 | < 0.1 | 0.697 | 1.3 | < 0.08 | < 0.08 | 1.68 | 0.5 | 1.72 | 1.06 | 0.306 | 0.249 | < 0.16 | < 0.16 | 0.231 | <0.2 | < 0.16 | < 0.16 |
| | 4/6/2011 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 10/16/2011 | <1 | < 0.1 | 0.351 | 0.74 | < 0.08 | < 0.08 | 1.23 | 0.263 | 1.19 | 0.768 | 0.191 | 0.173 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/16/2012 | <1 | < 0.1 | 0.753 | 1.32 | < 0.08 | < 0.08 | 1.84 | 0.333 | 1.77 | 1.14 | 0.363 | 0.336 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/22/2012 | <1 | < 0.1 | 0.561 | 0.837 | < 0.08 | < 0.08 | 1.92 | 0.422 | 2.43 | 1.52 | 0.604 | 0.507 | 0.3 | < 0.16 | 0.222 | < 0.2 | < 0.16 | < 0.16 |
| | 5/2/2013 | <1 | 0.384 | 17.8 | 20.6 | 0.115 | 0.564 | 41.7 | 5.92 | 26.7 | 15.4 | 4.48 | 4.01 | 0.908 | < 0.16 | 0.586 | 0.283 | < 0.16 | 0.277 |
| | 10/2/2013 | <1 | < 0.1 | 1.69 | 2.47 | < 0.08 | 0.114 | 1.83(B) | 0.397 | 1.58 | 1.23 | 0.558 | 0.507 | 0.182 | < 0.16 | 0.217 | < 0.2 | < 0.16 | < 0.16 |
| | 4/22/2014 | <1 | < 0.1 | < 0.1 | 1.75 | < 0.08 | 0.103 | < 0.08 | 1.19 | < 0.08 | < 0.08 | 1.1 | 1 | 0.294 | < 0.16 | 0.299 | < 0.2 | < 0.16 | < 0.16 |
| | 10/8/2014 | <1 | < 0.1 | 2.15 | 2.08 | < 0.08 | 0.182 | 5.34 | 1.13 | 4.49 | 3.26 | 1.57 | 1.51 | 1.05 | < 0.16 | 0.828 | 0.285 | < 0.16 | 0.281 |
| | 4/14/2015 | <1 | < 0.1 | 1.72 | 2.67 | < 0.08 | 0.123 | 1.85 | 0.492 | 1.03 | 0.587 | 0.2 | 0.186 | < 0.16 | < 0.16 | < 0.16 | <2.0 | < 0.16 | < 0.16 |
| | 11/13/2015 | <1 | < 0.1 | 1.31 | 1.77 | < 0.08 | 0.086 | 2.5 | 0.693 | 2.08 | 1.61 | 0.489 | 0.507 | < 0.16 | 0.237 | 0.246 | <2.0 | < 0.16 | < 0.16 |
| | 4/5/2016 | <1 | < 0.1 | 1.31 | 2.5 | < 0.08 | 0.112 | 1.49 | 0.332 | 0.476 | 0.284 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/26/2016 | <1 | < 0.1 | 1.11 | 1.83 | 0.163(B) | < 0.08 | 0.922 | 0.271 | 0.474 | 0.342 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/25/2017 | <1 | 0.104 | 1.42 | 1.87 | < 0.08 | 0.1 | 1.78 | 0.326 | 1.1 | 0.782 | 0.301 | 0.282 | 0.265 | < 0.16 | 0.202 | < 0.2 | < 0.16 | < 0.16 |
| | 10/24/2017 | <1 | < 0.1 | < 0.1 | 4.56 | < 0.08 | 0.178 | < 0.08 | 1.48 | < 0.08 | < 0.08 | 1.05 | 0.959 | 0.298 | < 0.16 | 0.405 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2018 | <1 | < 0.2 | 0.79 | 0.91 | < 0.2 | < 0.2 | 0.87 | < 0.2 | 0.42 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID | Date Sampled | βπ (T) Pentachlorophenol | (T/Carbazole* | Llnorene (Τ/S/H | Баду (Д. Acenaphthene | (T) Naphthalene | λα (V) Acenaphthylene | (T) Phenanthrene | (T/Anthracene | (T/S) Fluoranthene | (T/Sm) | (T) Benzo [a] anthracene | (T/an) (T/an) | Уб (T) fluoranthene | /б Т fluoranthene | (T) Benzo [a] pyrene | ndeno [1,2,3-cd] T pyrene | of Dibenzo [a,h] (7) anthracene * | க் Benzo [g,h,i] (7 perylene |
|------------|-----------------|-----------------------------|---------------|-----------------|--------------------------|-----------------|--------------------------|------------------|---------------|--------------------|--------|-----------------------------|------------------|------------------------|----------------------|-------------------------|------------------------------|-----------------------------------|---------------------------------|
| | Levels (µg/L) | 1 | (Fg/ 2-) | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | (Fg/2) | 470 |
| _ | Devels (µg/L) | 1 | | 240 | 370 | 0.2 | 740 | 470 | 1000 | 1500 | 100 | 0.2 | 7.2 | 0.2 | 0.72 | 0.2 | 0.2 | | 470 |
| MW-20D | | | | | | | | | | | | | | | | | | | . |
| | 7/21/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 10/28/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 10/28/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 4/24/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/26/2000 | <11 | <5.5 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 | <2.2 |
| | 1/25/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | 2.31 | <2 | 4.47 | 29.3 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/28/2002 | <10 | <2 | 2.7 | 3.9 | <2 | <2 | 5.8 | <2 | 4.4 | 3.1 | <2 | 2.5 | <2 | <2 | <5 | <2 | 2.5 | <2 |
| | 3/4/2003 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/27/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/31/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/26/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/27/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/29/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/18/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/21/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 5/18/2009 | <2 | <0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/3/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | 0.162 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/28/2010 | <2 | < 0.2 | 1.335 | 1.239 | 0.048 | < 0.08 | 3.934 | 0.665 | 1.421 | 0.793 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/6/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/6/2011 | <1 | < 0.1 | 1.03 | 1.66 | < 0.08 | < 0.08 | 1.81 | 0.344 | 0.65 | 0.472 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/16/2011 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | 0.116 | < 0.08 | 0.133 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/17/2012 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/21/2012 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 5/2/2013 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | <0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 10/2/2013 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | 0.091(B) | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/21/2014 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | <0.091(B) | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/7/2014 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/14/2015 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 11/11/2015 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/4/2016 | | | | | | | < 0.08 | <0.08 | | | | | | | | <0.2 | | |
| | | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.1 | | | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | | < 0.16 | <0.16 |
| | 10/25/2016 | <1 | < 0.1 | <0.1 | <0.1 | 0.110 | < 0.08 | <0.08 | <0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | <0.16 |
| | 4/25/2017 | <1 | < 0.1 | <0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/24/2017 | <1 | <0.1 | <0.1 | <0.1 | < 0.08 | < 0.08 | < 0.08 | <0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | <0.16 | <0.16 |
| | 4/24/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID S Cleanup Leve | Date Sampled els (µg/L) | 1 (T Pentachlorophenol | - ('Τ'Sπ') ('Tarbazole* | euo. (µg/L) 240 | μg/L) 370 | (L) Naphthalene (P) (A) (P) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B | (L) Acenaphthylene (P) 400 | (L) Phenanthrene (A/D) A70 | (L/Qu) (M/Qu) 0081 | (L) Fluoranthene (T/San) | (hg/L) Nyrene | (Δ/Z Benzo [a] anthracene 0.2 | Chrysene (mg/L) | gμ Benzo [b] μοταπτhene 0.2 | (T/gu) (A/gu) (A/gu) (A/gu) (Benzo [k] | (L) Benzo [a] pyrene 0.2 | 70 m Indeno [1,2,3-cd] 7 T pyrene | π Dibenzo [a,h] [¬ anthracene * | han Benzo [g,h,i] (T) perylene |
|------------------------------|-------------------------------|------------------------|----------------------------|-----------------------|--------------|--|----------------------------|----------------------------|--------------------------|--------------------------|----------------|----------------------------------|-----------------|-----------------------------|--|-----------------------------|--------------------------------------|-------------------------------------|-----------------------------------|
| MW-21S | | | | | | | | | | | | | | | | | | | |
| 10 | 0/11/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12 | 2/20/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/ | /20/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10 | 0/15/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | 0.16 | < 0.08 | 0.162 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 5/ | 5/22/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 1 | 1/9/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 4/ | /29/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| 10 | 0/4/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/5/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/12/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/ | /11/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/18/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/ | /30/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/ | /22/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/8/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/ | /15/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 11 | 1/11/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4 | 4/6/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/26/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.155(B) | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/ | /25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10 | 0/23/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/ | /23/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | 2 | | | | | | | |
|---|---|---|---|--|--|--|--|---|---|---|
| Dhen anthrene (μg/L) (μg/L) (μg/L) (μg/L) (470 (1800) (764 (1800) (1800 | Hnoranthene (μg/L) | (J80) Pyrene | (T) (BB) (BB) (BB) (BB) (BB) (BB) (BB) (| Chrysene (mg/L) 9.2 | β Benzo [b] (πg/L) 0.2 | (R) Benzo [k] (A/gu) fluoranthene | (L) Benzo [a] byrene (0.2) | 7.0 m Indeno [1,2,3-cd] Tpyrene | ் Dibenzo [a,h] (ர anthracene * | 70 Benzo [g,h,i] 71 perylene |
| | | | | | | | | | | |
| <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| <2 <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 0.12 < 0.08 | 0.12 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.08 < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| < 0.2 < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| | (µg/L) (µg/L) 470 1800 <2 | (µg/L) (µg/L) (µg/L) 470 1800 1500 <2 | (µg/L) (µg/L) (µg/L) (µg/L) 470 1800 1500 180 2 1800 1500 180 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 0.08 | (µg/L) (µg/L) | (µg/L) (µg/L) | (µg/L) (µg/L) | (µg/L) (µg/L) | The part of the | The part of the | The part of the |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | Pentachlorophenol | Carbazole* | rene | enaphthene | Naphthalene | enaphthylene | Phenanthrene | Anthracene | Fluoranthene | ne | o [a] anthracene | Chrysene | Benzo [b] fluoranthene | Benzo [k] fluoranthene | o [a] pyrene | no [1,2,3-cd] ne | enzo [a,h] hracene * | o [g,h,i] lene |
|------------|--------------|-------------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|--------------|-------------|------------------|-------------|---------------------------|---------------------------|--------------|---------------------|-------------------------|-----------------------|
| Well | Date | Pent | Cart | Fluorene | Асеп | Napl | Acen | Pher | Anth | Fluo | Pyrene | Benz | Chry | Benzo fluorai | Benzo fluorai | Benzo | Indeno pyrene | Dibe | Benzo [g, perylene |
| ID | Sampled | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ |
| Cleanup Le | evels (μg/L) | 1 | | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 470 |
| MW-22S | | | | | | | | | | | | | | | | | | | |
| | 10/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 9/28/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/19/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/3/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/29/2010 | <20 | < 0.2 | < 0.12 | 0.132 | < 0.04 | < 0.08 | 0.081 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/5/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/7/2011 | <1 | < 0.1 | 0.113 | 0.115 | < 0.08 | < 0.08 | 0.374 | 0.082 | 0.434 | 0.197 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/16/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/16/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/21/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/23/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/7/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/15/2015 | <1 | < 0.1 | < 0.1 | 0.122 | < 0.08 | < 0.08 | 0.090 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 11/13/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/6/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.104 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/28/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.255 | < 0.08 | 0.104 | < 0.08 | 0.125 | 0.136 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/24/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/23/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID Cleanup I | Date Sampled Levels (µg/L) | 1 (g) Pentachlorophenol | π) (Tarbazole* | eueueueueueueueueueueueueueueueueueueu | Acenaphthene (Pg/L) 370 | μος (L) Naphthalene 6.2 | (L) Acenaphthylene | (L) Dhenanthrene (A/D) 470 | (A/Sm) Anthracene | (T/Sm) Fluoranthene | (T) Pyrene (180 | π) (πg/L) (πg/L) (πg/L) | Chrysene (πg/Γ) | αμβευχο [b] (π) Benzo [b] 0.2 | (T/ga) (T/ga) (T/ga) (T) (T) (T) (T) (T) (T) (T) (T) (T) (T | (T) Benzo [a] pyrene | 7. The pyrene [1,2,3-cd] | The Dibenzo [a,h] The Anthracene * | 70 Benzo [g,h,i] |
|-------------------------|----------------------------------|-------------------------|-------------------|--|-------------------------|----------------------------|--------------------|----------------------------|-------------------|---------------------|-----------------|----------------------------------|-----------------|-------------------------------------|---|----------------------|--------------------------|------------------------------------|------------------|
| MW-22D | | | | | | | | | | | | | | | | | | | |
| | 10/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 9/26/2008 | <2 | < 0.2 | 0.176 | 1.864 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | 0.106 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/19/2009 | <2 | < 0.2 | < 0.12 | 1.284 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/3/2009 | <2 | < 0.2 | 0.385 | 2.43 | < 0.04 | < 0.08 | 0.41 | 0.152 | 0.352 | 0.195 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/29/2010 | <10 | < 0.2 | 0.632 | 1.124 | < 0.2 | < 0.08 | 2.512 | 0.368 | 1.24 | 0.694 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/5/2010 | <1 | < 0.1 | < 0.1 | 0.194 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/7/2011 | <1 | < 0.1 | < 0.1 | 0.492 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/16/2011 | <1 | < 0.1 | < 0.1 | 0.117 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/16/2012 | <1 | < 0.1 | < 0.1 | 0.471 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/21/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/23/2014 | <1 | < 0.1 | < 0.1 | 0.209 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/7/2014 | <1 | < 0.1 | < 0.1 | 0.286 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/16/2015 | <1 | < 0.1 | < 0.1 | 0.314 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 11/13/2015 | <1 | < 0.1 | < 0.1 | <.01 | < 0.08 | < 0.08 | 0.086 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/6/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.146 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/28/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | 0.129 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/24/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID Cleanup I | Date Sampled .evels (µg/L) | π') (7) Pentachlorophenol | ள் 7 Carbazole* | eme (µg/L) 240 | (L/gm) (D/gm) 370 | (μg/L) (μg/L) 6.2 | (L) Acenaphthylene (A) Acenaphthylene | (T/gm) (A/gm) 470 | (L/Sah) (M/Sah) 0081 | (L) | (hg/L) 180 | (T) (T) (Benzo [a] anthracene | (µg/L) 9.2 | Benzo [b] (μg/L) 0.2 | (f) Benzo [k] (f) Benzo [k] (h) Thoranthene | (ng/L) (2) (ng/L | 7. The second of | m Dibenzo [a,h] T anthracene * | o D Benzo [g,h,i] |
|-------------------------|----------------------------------|------------------------------|----------------------|----------------------|-------------------------|-------------------------|---------------------------------------|-------------------|----------------------------|---|-------------|-------------------------------------|---------------|----------------------------|---|--|--|--------------------------------|-------------------|
| MW-23 | | | | | | | | | | | | | | | | | | | |
| | 10/18/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/19/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 9/25/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/19/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/4/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | 0.138 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/29/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/11/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/6/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/10/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/17/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/1/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/23/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/8/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/15/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 11/12/2015 | <1 | < 0.1 | 0.101 | 0.126 | < 0.08 | < 0.08 | 0.155 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/25/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/23/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/23/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | | ,round water | | | | | | | | | |
|------------|-----------------|------------------------------|-------------|----------|-----------------|-----------------|-----------------------------------|----------------------|---------------|------------------|---------|----------------------------|----------|----------------------------------|--------------------------------|-----------------------|------------------------------|----------------------------------|---------------------------------|
| Well ID | Date Sampled | π') (7) Pentachlorophenol | (Tarbazole* | (μg/L) | Дд Асепарhthene | (T) Naphthalene | Establisher (T) Acenaphthylene | β Phenanthrene (T | (T/Anthracene | (Thoranthene) (Σ | Mg/L) | H) Benzo [a] anthracene | (Trysene | க் Benzo [b] Tfluoranthene | β Benzo [k] (T fluoranthene | (JZ) Benzo [a] pyrene | ndeno [1,2,3-cd] T pyrene | En Dibenzo [a,h] T anthracene ** | க் Benzo [g,h,i] (7 perylene |
| | - | | (μg/L) | | | | | | | | | | | | | | | | |
| _ | Levels (µg/L) | 1 | | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 470 |
| RW-1 | | | | | | | | | | | | | | | | | | | |
| | 7/19/1999 | 7990 | 3020 | 24000 | 35700 | 24200 | 885000 | 77500 | 14900 | 41400 | 22100 | 7340 | 6460 | 1240 | 2290 | 3180 | <400 | <400 | <400 |
| | 10/29/1999 | 24000 | 13600 | 127000 | 206000 | 164000 | <4000 | 436000 | 70500 | 137000 | 123000 | 28800 | 24800 | <4000 | 11000 | 12900 | n/a | <4000 | 8760 |
| | 1/25/2000 | <200000 | 13400 | 143000 | 207000 | 185000 | <40000 | 413000 | 60400 | 179000 | 129000 | 29600 | 25600 | <40000 | 37600 | 37300 | <40000 | <40000 | <40000 |
| | 4/25/2000 | 3690 | 3960 | 32400 | 45400 | 37500 | 861 | 92600 | 13800 | 48700 | 22200 | 6560 | 6360 | 994 | 2020 | 2700 | 1070 | 850 | 989 |
| | 7/27/2000 | 14500 | 7460 | 82400 | 79700 | 78100 | 2020 | 151000 | 37300 | 81700 | 79900 | 16400 | 14300 | 2140 | 3530 | 6030 | 4700 | 3810 | 4310 |
| | 1/31/2001 | 3910 | 61.7 | 226 | 413 | 810 | 9.88 | 419 | 75.2 | 106 | 12.5 | 23.1 | 23.2 | 5.54 | 6.93 | 8.61 | <2 | <2 | <2 |
| | 7/30/2001 | 2280 | 283 | 1230 | 1780 | 1850 | 422 | 3420 | 596 | 1530 | 1080 | 265 | 245 | 53.3 | 82.2 | 130 | 23.3 | < 20 | <20 |
| | 8/28/2002 | 2100 | 170 | 170 | 340 | 1500 | < 20 | 270 | 44 | 67 | 48 | < 20 | < 20 | < 20 | < 50 | < 20 | < 20 | < 20 | <20 |
| | 3/5/2003 | 1300 | 110 | 530 | 780 | 960 | 14 | 1200 | 190 | 560 | 470 | 85 | 76 | 27 | 26 | 30 | <10 | <10 | <10 |
| | 8/27/2003 | 1400 | 160 | 550 | 990 | 2000 | < 20 | 1300 | 210 | 550 | 430 | 88 | 90 | 40 | < 50 | 28 | <20 | <20 | <20 |
| | 2/25/2004 | 1200 | <200 | 5900 | 8300 | 6700 | <200 | 18000 | 2800 | 8200 | 5300 | 1300 | 1200 | 490 | < 500 | 400 | <200 | <200 | <200 |
| | 8/24/2004 | <20000 | 12000 | 110000 | 150000 | 130000 | <4000 | 300000 | 51000 | 150000 | 100000 | 25000 | 23000 | 9900 | <10000 | 8200 | <4000 | <4000 | <4000 |
| | 2/21/2005 | <5000 | 2200 | 27000 | 36000 | 28000 | <1000 | 72000 | 12000 | 34000 | 23000 | 5700 | 5400 | <1000 | <3000 | 1900 | <1000 | <1000 | <1000 |
| | 8/22/2005 | 300 | 68 | 730 | 1100 | 52 | <40 | 2000 | 340 | 1000 | 660 | 180 | 200 | 92 | <100 | 90 | 56 | 52 | 82 |
| | 2/21/2006 | 760 | 320 | 1200 | 1800 | 2100 | <100 | 3200 | 550 | 1500 | 890 | 230 | 220 | <100 | <300 | 120 | <100 | <100 | <100 |
| | 8/21/2006 | <2000 | 1500 | 17000 | 22000 | 17000 | <400 | 46000 | 7800 | 23000 | 16000 | 3900 | 3500 | 1400 | 1200 | 1200 | 530 | <400 | <400 |
| | 9/27/2006 | | | 23 | | 17000 | | | | | | | 2 | | | | | <2 | |
| | 12/19/2006 | <10 | <2 | 23 11 | 54 26 | | <2 <2 | 27 | 5.1 | 20 | 13 4 | 2.1 | | <2 | <2 | <5 | <2 <2 | | <2 |
| | | <10 | <2 | | 26 | 16 70 | | 11 | 2.1 | 8 | | <2 | <2 | <2 | <2 | <5 | | <2 | <2 |
| | 3/21/2007 | <10 | 7.8 | 38 | 81 | 78 | <2 | 40 | 38 | 14 | 9.4 | 2.1 | 2.1 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/8/2008 | <2 | < 0.2 | < 0.12 | 3.44 | < 0.04 | 0.108 | < 0.08 | 0.164 | 1.864 | 2.88 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | 0.404 | 0.258 | <24 | 0.304 |
| | 5/22/2009 | <2 | 7.788 | 61.6 | 150 | 1.212 | 0.955 | 52 | 4.884 | 1.03 | 5.158 | 0.351 | 0.362 | < 0.16 | < 0.16 | 0.167 | < 0.24 | <24 | < 0.24 |
| | 11/5/2009 | <200 | 92 | 174 | 299 | 698 | <8 | 299 | 37 | 170 | 128 | 34.7 | 27.8 | <16 | 24.3 | 25.7 | <24 | <24 | <24 |
| | 4/29/2010 | <20 | 14.4 | 93.5 | 187 | 7.86 | 1.183 | 52.1 | 5.949 | 31.1 | 15.2 | 3.083 | 2.87 | 5.314 | <1.6 | 6.032 | <2.4 | <2.4 | <2.4 |
| | 10/12/2010 | <10 | 12.5 | 61.9 | 127 | 1.89 | < 0.8 | 17 | 2.86 | <0.8 | 7.2 | <1 | <1 | 1.73 | <1.6 | 1.72 | <2 | <1.6 | <1.6 |
| | 4/7/2011 | <10 | 17 | 94.1 | 200 | 9.29 | 3.15 | 46 | 10.6 | 24.8 | 10.8 | 1.46 | 1.11 | 1.77 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/13/2011 | <10 | 12 | 78.5 | 147 | 2.72 | 1.08 | 10.7 | 7.31 | 19.3 | 10 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/19/2012 | <10 | 11.3 | 86.3 | 192 | 3.98 | 0.866 | 59 | 2.71 | 12 | 6.32 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/23/2012 | <10 | 18.6 | 83.7 | 166 | 4.63 | 1.22 | 16.3 | 6.39 | 16.4 | 9.04 | 1.21 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 5/7/2013 | <10 | 21.1 | 61.7 | 131 | 4.4 | 2.12 | 52.3 | 5.77 | 12.9 | 7.28 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/2/2013 | <10 | 14.6 | 48.1 | 94.7 | 6.58 | 1.85 | 23.8(B) | 7.19 | 19.4 | 11.5 | 1.69 | 1.2 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/23/2014 | <10 | 26.4 | 70.5 | 161 | 10.4 | 1.36 | 76 | 6.32 | 16 | 8.35 | 1.2 | 1.03 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/8/2014 | <10 | 12.8 | 37.7 | 80.7 | 3.48 | 1.12 | 14 | 4.06 | 10.2 | 5.95 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/15/2015 | <10 | 22.8 | 81.4 | 178 | 27.6 | 0.864 | 73.5 | 4.31 | 16.4 | 8.23 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 11/12/2015 | <10 | 11.6 | 51.0 | 107 | 5.05 | 1.77 | 25.0 | 7.40 | 15.7 | 9.14 | <1 | 1.65 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/6/2016 | <1 | 11.5 | 70.5 | 145 | 4.9 | 1.71 | 83.3 | 8.39 | 20.7 | 14.2 | 2.48 | 2.37 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/27/2016 | <1 | 4.22 | 62.4 | 120 | 5.66 | 1.47 | 26.6(B) | 5.72 | 25.3 | 13.5 | 2.72 | 2.72 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/27/2017 | <10 | 15.1 | 54.3 | 120 | 1.74 | 1.7 | 46.3 | 5.95 | 12.6 | 7.58 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/26/2017 | <10 | 23.6 | 61.5 | 122 | 5.78 | 1.69 | 39.1 | 7.83 | 22.4 | 11.2 | 1.39 | 1.3 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/25/2018 | <10 | 15.6 | 103.0 | 184 | 2.47 | <2 | 81.4 | 5.39 | 24.7 | 25.1 | 5.5 | 4.94 | <2 | 2.61 | 2.34 | <2 | <2 | <2 |
| <u> </u> | 20, 2010 | | | | | | | | | | | | | | | | | | |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | * |
|--|--|
| The Sampled (lgg/L) | 470 <400 <400 6.17 10.8 <40000 <4000 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 |
| RW-2 7/19/1999 9390 2970 19500 26000 19600 731 78100 12200 2760 18600 6540 5790 2780 1120 2010 834 10/29/1999 <10 <5 119 238 4.88 3.59 335 62.3 206 128 53.6 53.4 38.6 14.5 28.3 12.5 1/25/2000 <200000 <100000 11900 16900 130000 <40000 341000 48100 143000 102000 24800 19900 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 <40000 | <400 <400 6.17 10.8 <40000 <40000 <2 <2 <2 <2 5.62 <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 <10 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 6.17 10.8 <40000 <40000 <2 <2 <2 <2 5.62 <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 6.17 10.8 <40000 <40000 <2 <2 <2 <2 5.62 <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 6.17 10.8 <40000 <40000 <2 <2 <2 <2 5.62 <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | <0000 <40000 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | <2 <2 <2 <5.62 <2 <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 <10 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | <2 5.62 <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | <2 <2 <2 <2 <2 <2 <10 <10 <10 <10 |
| 7/30/2001 132 <5 127 272 5.38 3.17 137 14.9 34.4 21.7 2.96 2.62 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 <2 <2 <20 <10 <10 <10 <10 |
| 8/28/2002 130 82 140 360 440 5.6 240 23 27 13 <2 | <2 <20 <10 <10 <10 <10 |
| 3/5/2003 | <10 <10 <10 <10 |
| 8/27/2003 76 140 280 530 920 <10 650 90 240 170 34 34 12 15 <30 <10 2/25/2004 78 75 <2 270 390 5.5 <2 28 66 42 9.2 8.8 3.6 2.6 <5 <2 8/24/2004 110 120 130 290 880 <20 170 <20 37 22 <20 <20 <20 <20 <20 <50 <50 <20 | <10 <10 |
| 2/25/2004 78 75 <2 270 390 5.5 <2 28 66 42 9.2 8.8 3.6 2.6 <5 <2 8/24/2004 110 120 130 290 880 <20 170 <20 37 22 <20 <20 <20 <20 <50 <50 <20 | |
| 8/24/2004 110 120 130 290 880 <20 170 <20 37 22 <20 <20 <20 <20 <50 <20 | |
| | <20 <20 |
| 2/21/2005 <100 160 350 650 1300 <20 700 99 260 180 41 39 <20 <20 <50 <20 | <20 <20 |
| 8/22/2005 <50 130 130 290 570 <10 160 22 33 19 <10 <10 <10 <10 <30 <10 | <10 <10 |
| 2/21/2006 <50 130 140 360 750 <10 160 19 24 13 <10 <10 <10 <10 <30 <10 | <10 <10 |
| 8/21/2006 <200 70 170 330 580 <40 330 41 110 78 <40 <40 <40 <40 <40 <40 <40 < | <40 <40 |
| 9/27/2006 <50 11 98 180 65 <10 140 20 61 40 <10 <10 <10 <10 <30 <10 | <10 <10 |
| 12/21/2006 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | <2 <2 |
| 3/21/2007 <10 8.9 64 140 <2 2.2 61 12 31 22 4.4 4 <2 2.2 <5 <2 | <2 <2 |
| 10/10/2008 <2 <0.12 0.166 <0.04 <0.8 0.658 0.208 1.294 0.892 0.628 0.294 0.34 0.238 0.51 <0.24 | <0.24 <0.24 |
| 11/5/2009 <20 32.7 12 26 <0.4 0.85 14 6.18 80 42.6 12.4 9.73 <1.6 4.8 5.7 <2.4 | 2.7 2.9 |
| 4/29/2010 <20 <2 20.6 29 5.758 1.22 62.8 10 90.6 56.1 13.5 11.9 15 <1.6 18 3.468 | <2.4 3.34 |
| 10/12/2010 <10 5.27 33.1 68.3 1.52 <0.8 3.92 3.87 103 75.7 18.5 12.4 16.4 <1.6 15.8 <2 | <1.6 1.75 |
| 47/2011 <1 <0.1 <0.1 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0.08 <0. | <0.16 <0.16 |
| 10/18/2011 <1 3.59 28.9 59.2 3.4 0.825 6.57 3.38 13.2 6.12 0.477 0.378 0.369 <0.16 0.248 0.229 | <0.16 <0.16 |
| 4/19/2012 <10 <1 <1 1.66 <0.8 <0.8 <0.8 <0.8 <0.8 <0.8 <1 <1 <1.6 <1.6 <1.6 <2 | <1.6 <1.6 |
| 10/23/2012 <10 <1 2.29 8.38 <0.8 <0.8 <0.8 <0.8 <2.26 1.28 <1 <1 <1.6 <1.6 <1.6 <2 | <1.6 <1.6 |
| 577/2013 <10 <1 12.6 25.6 1.41 <0.8 9.29 1.5 3.23 1.8 <1 <1 <1.6 <1.6 <1.6 <2 | <1.6 <1.6 |
| | <0.178 <0.178 |
| 4/21/2014 Flooded below grade surface completion, therefore well was not sampled. | |
| 10/8/2014 <1 1.06 10.3 20.6 0.201 0.397 3.78 2.08 13.9 7.69 2.09 1.46 0.819 <0.16 0.555 0.262 | < 0.16 0.241 |
| 4/13/2015 Flooded below grade surface completion, therefore well was not sampled. | |
| 11/13/2015 <1 0.165 1.15 3.31 <0.1 0.119 <0.08 0.128 0.124 0.483 <0.1 0.178 0.209 <0.16 0.215 <0.2 | < 0.16 0.241 |
| 4/5/2016 Flooded below grade surface completion, therefore well was not sampled. | 0.271 |
| 10/27/2016 <1 0.67 7.31 15.8 NR <0.08 0.110(B) 1.06 NR NR 0.307 0.287 <0.16 <0.16 <0.16 <0.2 | <0.16 <0.16 |
| 4/24/2017 Flooded below grade surface completion, therefore well was not sampled. | |
| 10/26/2017 <1 0.493 1.09 2.39 <0.08 <0.08 0.205 0.17 1.11 0.378 0.106 0.102 <0.16 <0.16 <0.16 <0.2 | <0.16 <0.16 |
| 4/23/2018 Flooded below grade surface completion, therefore well was not sampled. | |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID Cleanup | Date Sampled Levels (µg/L) | (T) Pentachlorophenol | (π) Carbazole* | ones (µg/L) 240 | A Acenaphthene (L/g/h) | Naphthalene Ng/L) | (T/A Acenaphthylene (T/A) | (Topical Phenanthrene Phenanthrene | (L)(Sqq) Anthracene | Llnoranthene (L/g/L) 1500 | 180 (J/Bd) yrene | (µg/L) (µg/L) 0.2 | ouesschu Chrysene (mg/L) 9.2 | Benzo [b] (µg/L) 0.2 | (L) Benzo [k] Benzo [k] (L) | Benzo [a] byrene (πg/L) 0.2 | 7.0 (T) pyrene | 前 bibenzo [a,h] 「才anthracene ** | A Benzo [g,h,i] 710 perylene |
|-----------------------|----------------------------------|-----------------------|---------------------|-----------------------|------------------------|-----------------------|---------------------------|------------------------------------|---------------------|---------------------------|------------------|-------------------------|---------------------------------------|----------------------|---|--------------------------------|----------------|---------------------------------------|------------------------------|
| RW-3 | | | | | | | | | | | | | | | | | | | |
| | 7/19/1999 | 6210 | 2090 | 11800 | 16400 | 14700 | <400 | 29100 | 6970 | 18600 | 12600 | 4000 | 3120 | 1450 | 601 | 1100 | <400 | <400 | <400 |
| | 10/29/1999 | <10 | 11.7 | 42.6 | 94.9 | 3.15 | <2 | 92.6 | 18.9 | 66.5 | 33.5 | 12 | 11.6 | 8.29 | 2.76 | 6.38 | <2 | <2 | <2 |
| | 1/25/2000 | <10000 | 1110 | 12000 | 18000 | 15600 | <2000 | 36600 | 5250 | 15800 | 11400 | 2410 | 2350 | 1930 | <2000 | 2070 | <2000 | <2000 | <2000 |
| | 4/25/2000 | <100 | < 50 | 250 | 308 | 35.8 | <20 | 656 | 134 | 370 | 170 | 74.5 | 78.6 | 38.2 | < 20 | 33 | 54.4 | <20 | 63.9 |
| | 7/27/2000 | <10 | <5 | 89.2 | 81.4 | 2.8 | <2 | 377 | 67.5 | 135 | 198 | 42.7 | 37.7 | 17.8 | 6.23 | 13.2 | 8.22 | 5.16 | 7.37 |
| | 1/31/2001 | 20.3 | <5 | 17.7 | 48.3 | 8.73 | <2 | 13.1 | 3.42 | 3.89 | 5.65 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/30/2001 | <10 | <5 | 20 | 52.5 | 7.94 | <2 | 2.32 | 3.04 | 13 | 7.28 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/28/2002 | <10 | 10 | 42 | 65 | 24 | <2 | 98 | 16 | 28 | 13 | <2 | <2 | <20 | <20 | < 50 | <2 | <2 | <20 |
| | 3/5/2003 | 20 | <2 | 5.8 | 14 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | 28 | 59 | 120 | 100 | 2.7 | 84 | 15 | 30 | 15 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | 11 | 28 | 70 | 53 | 2.9 | 31 | 5 | 15 | 7.5 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 | <10 | 22 | 52 | 110 | 10 | <2 | 46 | 7.2 | 18 | 9.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/21/2005 | <10 | 4.2 | 16 | 46 | 19 | <2 | 6 | 2.1 | 6.8 | 4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/22/2005 | <10 | 13 | 17 | 61 | <2 | <2 | <2 | <2 | 10 | 5.6 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/21/2006 | <10 | 21 | 46 | 93 | 7.6 | <2 | 31 | 7.3 | 18 | 8.8 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/21/2006 | <10 | 9.9 | 23 | 56 | 7.3 | <2 | 15 | 3.1 | 8.8 | 4.8 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/1/2006 | <10 | <2 | 11 | 20 | <2 | <2 | 6 | <2 | 8.3 | 4.9 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/21/2007 | <10 | <2 | <2 | 2.8 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/9/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | 0.138 | < 0.08 | 0.1 | < 0.08 | < 0.2 | <2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/10/2009 | <2 | < 0.2 | < 0.12 | 0.38 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/11/2010 | <1 | < 0.1 | 0.953 | 4.81 | < 0.08 | < 0.08 | < 0.08 | 0.208 | 0.713 | 0.371 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/18/2011 | <1 | < 0.1 | 3.06 | 13.9 | < 0.08 | 0.144 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | <0.16 |
| | 5/8/2013 | <1 | 0.135 | 1.32 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | 0.127 | 0.194 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | <0.16 |
| | 10/3/2013 | <1 | < 0.1 | 0.161 | 1.23 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | 0.096(B) | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/21/2014 | | ooded below | _ | • | | | • | 0.150 | 0.522 | 0.245 | -0.1 | .0.1 | .0.16 | .0.16 | -0.16 | -0.2 | -0.16 | .0.16 |
| | 10/7/2014 | <1 | < 0.1 | <0.1 | 2.82 | < 0.08 | < 0.08 | < 0.08 | 0.158 | 0.523 | 0.245 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/13/2015 | | ooded below | ~ | • | | | • | 0.007 | 0.000 | 0.122 | -0.1 | .0.1 | .0.17 | .0.17 | .0.1.6 | .0.0 | .0.17 | .0.1.6 |
| | 11/13/2015 | <1 | < 0.1 | <0.1 | 1.67 | <0.08 | < 0.08 | 0.237 (B) | 0.097 | 0.283 | 0.133 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | | ooded below | _ | • | | | • | 0.120 | 0.261 | 0.164 | -0.1 | .0.1 | .0.16 | .0.16 | -0.16 | -0.2 | -0.16 | .0.16 |
| | 10/27/2016 4/24/2017 | <10 | 13.6 | <0.1 | 1.48 | <0.08 | < 0.08 | <0.08 | 0.128 | 0.261 | 0.164 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | | | ooded below <0.1 | grade surfa | ce completi 2.1 | on, therefor <0.08 | e well was i | not sampled. <0.08 | 0.202 | 0.962 | 0.521 | < 0.1 | < 0.1 | <0.16 | <0.16 | < 0.16 | < 0.2 | <0.16 | <0.16 |
| | 10/25/2017 | <1 | | | | | | | 0.303 | 0.962 | 0.521 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.10 | <0.2 | < 0.16 | < 0.16 |
| | 4/23/2018 | Flo | ooded below | grade surfa | ce completi | on, therefor | e well was i | not sampled. | | | | | | | | | | | |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | | | | <u>ə</u> | | | | | | | |
|-----------------------|---|-----------------------------|---|-----------------------------|-------------------------------|---------------------------------------|-----------------------------|--------------------------------|---------------------------|-------------------------------|----------------------------|---|-----------------------------|------------------------------|-------------------------------------|---------------------------|--|------------------------------------|------------------------------|
| Well ID Cleanun | Date Sampled Levels (ug/L) | α γ Pentachlorophenol | π) (T/Carbazole* | (µg/L) | (L) Acenaphthene (A/E) | ναρμτηαίευε (L) Naphthalene 6.2 | (L) Acenaphthylene | (μg/L) (μg/L) 470 | (μς/L) 0081 | (T/Sπ) (T/Sπ) (T/Sπ) | (T/Sth) Nyrene | π) (πg/L) (γ) Benzo [a] anthracen | cpr. Chrysene (πg/Γ) | β Benzo [b] (7) Thuoranthene | (T/gh) Benzo [k] (1/gh) Thoranthene | π) (πg/L) 0.2 | 7.0 m Indeno [1,2,3-cd] 7.0 m Indeno [1,2,3-cd] | π Dibenzo [a,h] (7/a anthracene ** | o H Benzo [g,h,i] |
| RW-4 | Ecreis (µg/E) | | | 240 | 570 | 0.2 | 240 | 470 | 1000 | 1200 | 100 | 0.2 | 7.2 | 0.2 | 0.72 | 0.2 | 0.2 | | 470 |
| KW-4 | 7/19/1999 10/29/1999 1/25/2000 4/25/2000 | 4190 <1000 <1000 <10 | 1430 622 <500 <5 | 8870 6440 476 22.7 | 12900 10500 528 66.8 | 12700 7260 <200 <2 | <400 <200 <200 2.5 | 21600 22000 1780 24.1 | 4640 3460 393 8.18 | 13800 6930 1610 51.5 | 7140 7510 1150 28 | 2020 1650 308 14.9 | 1880 1270 302 15.1 | 835 706 246 8.41 | <400 361 <200 4.07 | 706 481 240 7.96 | <400 <200 <200 7.73 | <400 <200 <200 <2 | <400 <200 <200 8.16 |
| | 7/27/2000 1/31/2001 | <100 <100 | <50 10.8 | <20 43.8 | 48.9 113 | <20 <2 | <20 2.63 | 90 53.6 | <20 11.1 | 216 13.6 | 243 20.9 | 64.8 3.28 | 64.8 3.16 | 38.6 <2 | <20 <2 | 29.7 <2 | 50 <2 | <20 <2 | 46.8 <2 |
| | 7/30/2001 8/28/2002 | <10.9 <10 | <5450 <2 | 99.8 19 | 190 53 | <2.18 4.2 | 5.33 | 109 10 | 22.4 2.8 | 50.3 14 | 31.7 9.9 | 5.33 <2 | 5.46 | 2.77 <20 | <2.18 <20 | <2.18 <50 | <2.18 <2 | <2.18 | <2.18 <20 |
| | 3/5/2003 8/27/2003 | <10 <10 | <2 2.4 | 28 25 | 120 71 | 2 4.6 | 4.2 | <2 18 | 3.1 7.1 | 17 27 | 8.3 25 | 2.5 6.3 | 2.6 | <2 3.8 | <2 3.4 | <5 <5 | <2 <2 | <2 <2 | <2 <2 |
| | 2/25/2004 | <10 | <2 | 8.8 | 32 | <2 | <2 | <2 | <2 | 4.6 | 2.7 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 2/21/2005 | <10 <10 | <20 <2 | <20 21 | <20 53 | <20 <2 | <20 3.2 | <20 85 | <20 21 | <20 100 | <20 71 | <20 22 | <20 21 | <20 10 | <20 9.2 | <50 9.2 | <20 3.2 | <20 <2 | <20 2.9 |
| | 8/22/2005 2/21/2006 | <10 <10 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | 3.5 4.2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <5 <5 | <2 <2 | <2 <2 | <2 <2 |
| | 8/21/2006 10/1/2006 | <10 <10 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <5 <5 | <2 <2 | <2 <2 | <2 <2 |
| | 12/21/2006 3/21/2007 | <10 <10 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 2.1 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <2 <2 | <5 <5 | <2 <2 | <2 <2 | <2 <2 |
| | 10/9/2008 10/11/2010 | <2 <1 | <0.2 2.05 | 0.604 | 2.392 8.22 | < 0.04 | 0.272 | 0.108 | 0.126 | 0.662 | 0.248 | <0.2 <0.1 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/18/2011 | 2.8 | < 0.1 | 1.52 0.323 | 1.95 | <0.08 0.09 | 0.158 <0.08 | <0.08 0.115 | 0.166 0.12 | 0.204 <0.08 | 0.101 <0.08 | < 0.1 | <0.1 <0.1 | 0.456 <0.16 | <0.16 <0.16 | 0.196 <0.16 | <0.2 <0.2 | <0.16 <0.16 | 0.243 <0.16 |
| | 10/2/2013 4/21/2014 | <1 F | 0.247 Flooded below | 0.253 grade surfa | 1.02 ce completio | <0.08 on, therefore | <0.08 e well was r | <0.08 not sampled. | < 0.08 | <0.08 | <0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/7/2014 4/13/2015 11/13/2015 4/5/2016 | F | <0.1 Flooded below Flooded below Flooded below | grade surfa | ce completion | on, therefor | e well was r | not sampled. | < 0.08 | <0.08 | <0.08 | <0.1 | <0.1 | <0.16 | <0.16 | <0.16 | <0.2 | <0.16 | <0.16 |
| | 10/27/2016 4/24/2017 | <1 | <0.1 Flooded below | < 0.1 | 0.23 ce completio | 0.085 on, therefore | <0.08 e well was r | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/25/2017 4/23/2018 | <1 F | <0.1 Flooded below | 0.124 grade surfa | 0.22 ce completio | <0.08 on, therefore | <0.08 e well was r | <0.08 not sampled. | < 0.08 | 0.121 | <0.08 | <0.1 | <0.1 | < 0.16 | <0.16 | <0.16 | <0.2 | <0.16 | < 0.16 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Mell Date Acena Acena Benzo Treba anthri anthri Inden Zon Dibenzo anthri anthri anthri Anthri Acena anthri Ac | | | | | | | | | | | | ne | | | | | | | |
|--|------------|-------|--------------|-------------|-------------|--------------|--------------|--------------|--------|-------------|-------------|-----------------|-------------|--------|-------------|--------|---------------------------|----------------------------|----------------------------|
| 7/21/1999 <10 <5 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | ID Sampled | μg/L) | (µg/L) | (μg/L) | $(\mu g/L)$ | $(\mu g/L)$ | (μg/L) | (µg/L) | (µg/L) | $(\mu g/L)$ | $(\mu g/L)$ | οzuag (μg/L) | $(\mu g/L)$ | (µg/L) | $(\mu g/L)$ | (μg/L) | β Indeno [1 (T) pyrene | βπ) Dibenzo (T/anthrace | α Benzo [g,h,i] 7 perylene |
| 10/29/1999 < 100 | RW-5 | | | | | | | | | | | | | | | | | | |
| 1/25/2000 | 7/21/1999 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 4/25/2000 <10 | 10/29/1999 | <100 | < 50 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | <20 | < 20 | < 20 | < 20 | <20 | <20 | < 20 | <20 |
| 7/27/2000 | 1/25/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 7/30/2001 <10 | 4/25/2000 | <10 | <5 | <2 | 3 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8/28/2002 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 7/27/2000 | <10 | <5 | <2 | 4.11 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 3/5/2003 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 7/30/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 8/27/2003 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 8/28/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/25/2004 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 3/5/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/24/2004 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 8/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/21/2005 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/22/2005 <10 <2 2.3 5.6 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 2/21/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/22/2005 | <10 | <2 | 2.3 | 5.6 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 2/21/2006 <10 <2 2.6 3.8 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 2/21/2006 | <10 | <2 | 2.6 | 3.8 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 8/21/2006 <10 <2 17 32 2.8 <2 12 2.8 2.8 <2 <2 <2 <2 <2 <5 <2 <2 | 8/21/2006 | <10 | <2 | 17 | 32 | 2.8 | <2 | 12 | 2.8 | 2.8 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10/3/2006 <10 <2 2.9 4.2 <2 <2 2.5 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 10/3/2006 | <10 | <2 | 2.9 | 4.2 | <2 | <2 | 2.5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 12/20/2006 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 12/20/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 3/20/2007 <10 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 | 3/20/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| 10/11/2010 <1 <1 1.22 8.58 <0.08 0.103 <0.08 0.399 0.67 0.34 <0.1 <0.1 <0.16 <0.16 <0.16 <0.16 <0.2 <0.16 | 10/11/2010 | <1 | <1 | 1.22 | 8.58 | < 0.08 | 0.103 | < 0.08 | 0.399 | 0.67 | 0.34 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/17/2011 <1 <0.1 0.174 0.413 <0.08 <0.08 0.084 <0.08 0.417 0.279 <0.1 <0.1 <0.16 <0.16 <0.16 <0.16 <0.2 <0.16 | 10/17/2011 | <1 | < 0.1 | 0.174 | 0.413 | < 0.08 | < 0.08 | 0.084 | < 0.08 | 0.417 | 0.279 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 10/3/2013 <1 <0.1 <0.1 0.133 <0.08 <0.08 <0.08 0.093 0.21 0.106 <0.1 <0.1 <0.16 <0.16 <0.16 <0.16 <0.2 <0.16 | 10/3/2013 | <1 | < 0.1 | < 0.1 | 0.133 | < 0.08 | < 0.08 | < 0.08 | 0.093 | 0.21 | 0.106 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/21/2014 Flooded below grade surface completion, therefore well was not sampled. | 4/21/2014 | F | looded below | grade surfa | ce completi | on, therefor | e well was r | not sampled. | | | | | | | | | | | |
| 10/7/2014 <1 <0.1 <0.1 <0.1 2.4 <0.08 <0.08 <0.08 0.085 0.251 0.165 <0.1 <0.1 <0.16 <0.16 <0.16 <0.16 <0.16 | 10/7/2014 | <1 | < 0.1 | < 0.1 | 2.4 | < 0.08 | < 0.08 | < 0.08 | 0.085 | 0.251 | 0.165 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/13/2015 Flooded below grade surface completion, therefore well was not sampled. | 4/13/2015 | F | looded below | grade surfa | ce completi | on, therefor | e well was r | not sampled. | | | | | | | | | | | |
| 11/13/2015 Flooded below grade surface completion, therefore well was not sampled. | 11/13/2015 | F | looded below | grade surfa | ce completi | on, therefor | e well was r | not sampled. | | | | | | | | | | | |
| 4/5/2016 Flooded below grade surface completion, therefore well was not sampled. | 4/5/2016 | F | looded below | grade surfa | ce completi | on, therefor | e well was r | not sampled. | | | | | | | | | | | |
| 10/27/2016 <1 <0.1 <0.1 0.45 0.107 <0.08 0.089(B) <0.08 0.096 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.16 <0.16 | 10/27/2016 | <1 | < 0.1 | < 0.1 | 0.45 | 0.107 | < 0.08 | 0.089(B) | < 0.08 | 0.096 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/24/2017 Flooded below grade surface completion, therefore well was not sampled. | 4/24/2017 | F | looded below | grade surfa | ce completi | on, therefor | e well was r | not sampled. | | | | | | | | | | | |
| 10/25/2017 <1 <0.1 <0.1 <0.1 <0.08 <0.08 0.131 <0.08 0.131 <0.08 <0.1 <0.1 <0.16 <0.16 <0.16 <0.16 <0.2 <0.16 | 10/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | 0.131 | < 0.08 | 0.131 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| 4/23/2018 Flooded below grade surface completion, therefore well was not sampled. | 4/23/2018 | F | looded below | grade surfa | ce completi | on, therefor | e well was r | not sampled. | | | | | | | | | | | |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | 1 7 11 13 III g | | | | | | | | | | |
|----------|----------------------------------|--------------------------|------------------|------------------------------|---------------------|--------------------|------------------------|------------------------|-----------------------------|---------------------|-------------------|--|--------------------------------|---------------------------|---|-----------------------------|--------------------------------------|---|---------------------------------|
| - | Date Sampled Levels (µg/L) | 1 (T/S Pentachlorophenol | : (T) Carbazole* | JE Jenotene (µg/L) 240 | Acenaphthene (hg/L) | Naphthalene (µg/L) | 076 (T/Sacanaphthylene | (πg/T) Phenanthrene | Δ/gμ) Anthracene 0081 | Elnoranthene (J/gµ) | 081 (J/gh) Pyrene | (Hg/L) (Benzo [a] anthracene (D.2) | ouask.uc Cprl/cpu/L) 9.2 | [p] Benzo [p] (µg/L) (0.2 | (L) Benzo [k] (L) Benzo [k] (L) Quotanthene | (L) Benzo [a] byrene 0.2 | 7.0 (a) Indeno [1,2,3-cd] (a) Pyrene | The Dibenzo [a,h] The Dibenzo [a,h] The Dibenzo [a,h] The Dibenzo [a,h] | 7 Benzo [g,h,i] 0 T perylene |
| RW-6 | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | <10 | <5 | 8.38 | <2 | 4.75 | 18.3 | 3.9 | <2 | 7.72 | 6.5 | 2.21 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 10/29/1999 | <10 | <5 | 20.8 | 41.2 | 14.2 | <2 | 9.78 | 5.3 | 21.9 | 15.1 | 5.84 | 5.51 | 4.78 | <2 | 3.4 | <2 | <2 | <2 |
| | 1/25/2000 | <10 | <5 | 16.2 | 31.2 | 6.88 | <2 | 4.31 | 2.47 | 7.07 | 3.93 | 2.01 | <2 | 3.15 | <2 | 2.94 | 2.81 | <2 | <2 |
| | 4/25/2000 | <10 | <5 | 30.4 | 56.1 | 19.2 | 3.09 | 21.6 | 4.15 | 3.74 | 3.23 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/27/2000 | <10 | <5 | 21.7 | 30.9 | 10.8 | <2 | 14.7 | <2 | 2.18 | 3.75 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/31/2001 | <10 | <5 | 12.6 | 18.2 | 3.11 | <2 | 13.2 | 3.08 | 3.59 | 4.75 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/30/2001 | <10 | <5 | 6.36 | 9.92 | <2 | <2 | 3.39 | <2 | 2.96 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/28/2002 | <10 | <2 | 3.4 | 4.2 | <2 | <2 | 5.1 | <2 | 2.3 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/5/2003 | <10 | <2 | 4.8 | 8.2 | <2 | <2 | 3.4 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | <2 | 4 | 5.5 | <2 | <2 | 5 | <2 | 2.1 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | <2 | 3.1 | 4.5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 | <10 | <2 | 3.2 | 4 | <2 | <2 | 2.4 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/21/2005 | <10 | <2 | 2.9 | 3.7 | <2 | <2 | 3.2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/22/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/21/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/3/2006 | <10 | <2 | <2 | 2.5 | <2 | <2 | <2 | <2 | 3 | 2.7 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/20/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/21/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/10/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | 0.88 | < 0.08 | 0.092 | < 0.8 | <2 | < 0.2 | < 0.16 | <1.6 | < 0.16 | < 0.24 | < 0.24 | <2.4 |
| | 5/22/2009 | <2 | < 0.2 | 1.167 | 6.127 | 0.494 | 0.197 | < 0.08 | < 0.08 | 0.207 | 0.1 | 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 11/5/2009 | <2 | 0.69 | 0.49 | 6.34 | 0.152 | 0.42 | < 0.08 | 0.23 | 1.64 | 1.06 | 0.41 | < 0.2 | 1.06 | 0.29 | 0.38 | 0.887 | < 0.24 | 0.66 |
| | 5/4/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/11/2010 | <1 | < 0.1 | 0.569 | 5.96 | < 0.08 | 0.216 | < 0.08 | 0.156 | 0.743 | 0.305 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/7/2011 | <1 | < 0.1 | 0.4 | 3.96 | < 0.08 | 0.153 | < 0.08 | 0.124 | 0.905 | 0.382 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/17/2011 | <1 | < 0.1 | < 0.1 | 0.39 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | 0.549 | 0.461 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/17/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | 0.94 | 0.464 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/22/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | 1.29 | 0.539 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/8/2013 | <1 | 2.88 | 1.48 | 7.58 | 0.166 | 0.158 | 0.118 | 0.088 | 0.136 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/2/2013 | <1 | < 0.1 | 1.69 | 2.5 | < 0.08 | 0.15 | 0.196(B) | 0.203 | 0.66 | 0.392 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/22/2014 | <1 | 0.278 | 0.445 | 1.61 | 0.118 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/7/2014 | <1 | <0.1 | < 0.1 | 0.357 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | 0.885 | 0.372 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/13/2015 | | looded below | | | | | | | | | | | | | | | | |
| | 11/13/2015 | <1 | 0.196 | 1.96 | 0.241 | < 0.08 | < 0.08 | 0.322 (B) | 0.486 | 1.89 | 0.936 | < 0.1 | 0.168 | 0.180 | < 0.16 | 0.254 | < 0.2 | < 0.16 | 0.300 |
| | 4/6/2016 | <1 | < 0.1 | < 0.1 | 0.606 | < 0.08 | < 0.1 | <0.08 | < 0.08 | 0.137 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/27/2016 | <1 | <0.1 | 0.444 | 1.26 | < 0.08 | 0.085 | < 0.08 | < 0.08 | 0.715 | 0.293 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2017 | | looded below | | | | | | | | | | | | | | | | |
| | 10/26/2017 | <1 | <0.1 | < 0.1 | <0.1 | < 0.08 | < 0.08 | <0.08 | < 0.08 | 1.01 | 0.454 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/25/2018 | <1 | <0.1 | <0.1 | <0.1 | <0.00 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.1 | <0.1 | <0.10 | <0.10 | <0.10 | <0.2 | <0.10 | <0.10 |
| <u> </u> | 7/23/2010 | \1 | NO.2 | ₹0.2 | NO.2 | V0.2 | V0.2 | NO.2 | V0.2 | V0.2 | VO.2 | NO.2 | NO.2 | NO.2 | 10.2 | \0.2 | 10.2 | \0.2 | NO.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | rophenor and | | | | | | | | | | | |
|------|---|-----------------------------------|--------------------------------|-------------------------------|--|---|-------------------------|---------------------------------------|-------------------------------|--------------------------------|-------------------------|---------------------------------|--|---|--------------------------------|--|---|---|---------------------------------|
| | Date Sampled Levels (µg/L) | 1 (T/) Pentachlorophenol | π) Te Carbazole* | ene (μg/L) 240 | γ Acenaphthene (Lg/L) Acenaphthene 370 | $\begin{array}{c} \text{maphthalene} \\ \text{mg/L} \\ 6.2 \end{array}$ | α Acenaphthylene (1840) | (Lggu) Dhenanthrene (470 Phenanthrene | (Δ/gμ) (Δ/gμ) | (L)/gμ (L) Elnoranthene | 180 (hg/L) Pyrene | (L) Benzo [a] anthracene (a.c.) | operation of the character of the charac | [q] Benzo [h] (h2 | (T) Benzo [k] (T) fluoranthene | (\mathbf{p}, \mathbf{p}) Benzo [a] byrene (\mathbf{p}, \mathbf{p}) | (T) (1,2,3-cd) (T) (T) (T) (T) (T) (T) (T) (T) (T) (T | The Dibenzo [a,h] The Dibenzo [a,h] The Dibenzo [a,h] The Dibenzo [a,h] | π Benzo [g,h,i] 0 T perylene |
| RW-7 | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 10/29/1999 1/25/2000 4/25/2000 | <20000 <20000 <2000 <100 | <10000 <10000 289 <50 | 45700 72200 9170 663 | 60400 97800 10900 819 | 20300 23200 1800 224 | <4000 <4000 <400 | 143000 238000 24700 | 25900 44900 5170 373 | 87300 67300 13100 790 | 43100 86500 9190 | 11500 17900 2460 200 | 9800 17400 2280 181 | 5450 <4000 1400 | <4000 <4000 478 | 4300 <4000 1070 | <4000 <4000 673 70.2 | <4000 <4000 <400 <20 | <4000 <4000 <400 |
| | 7/27/2000 | <100 <100 | <50 <50 | <20 | 5 9.8 | <20 | 14.6 <20 | 2230 <20 | <20 | <20 | 444 <20 | <20 | <20 | 83.8 <20 | 38.3 <20 | 64.6 <20 | <20 | <20 <20 | 72.5 <20 |
| | 1/31/2000 | 100 | <5 <5 | 72 | 39.8 154 | 35.8 | 5.53 | 50.6 | 13.6 | 15.4 | 18.5 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| | 7/30/2001 | <10.7 | <5.35 | 56.5 | 134 | <2.14 | 4.58 | 54.4 | 10.1 | 31.4 | 20.7 | 3.54 | 3.36 | <2.14 | <2.14 | <2.14 | <2.14 | <2.14 | <2.14 |
| | 8/28/2002 | <20 | 11 | 140 | 220 | <4 | 6.8 | 290 | 62 | 180 | 140 | 33 | 3.30 34 | 15 | 12 | 13 | 6.9 | <4 | 7.8 |
| | 3/5/2003 | <10 | 4.3 | 32 | 82 | 14 | <2 | 30 | 5.2 | 13 | 9.2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | <2 | 15 | 59 | <2 | 2.1 | <2 | 2 | 10 | 7.3 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | 6 | 22 | 72 | 4.9 | 2.5 | 20 | 4.8 | <2 | 12 | 3.3 | 3.3 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 | <2000 | <400 | 5300 | 6600 | 1500 | <400 | 14000 | 2700 | 7900 | 5600 | 1500 | 1400 | 580 | 590 | <1000 | <400 | <400 | <400 |
| | 2/21/2005 | <10 | 6.8 | 33 | 83 | 3.6 | 2.2 | 17 | 4.1 | 7.2 | 4.4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/22/2005 | <10 | 11 | 28 | 73 | <2 | <2 | 12 | 4.4 | 7.5 | 4.4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/21/2006 | <100 | <2 | 23 | 47 | <2 | <2 | 23 | 5.1 | 11 | 5.2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/21/2006 | <10 | <2 | 22 | 56 | <2 | <2 | 19 | 7.3 | 45 | 25 | 3.9 | 3.8 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/5/2006 | <100 | <20 | 130 | 240 | < 20 | <20 | 150 | 23 | 49 | 29 | <20 | <20 | <20 | <20 | < 50 | < 20 | < 20 | <20 |
| | 12/20/2006 | <10 | 51 | 36 | 74 | 3.3 | <2 | 24 | 5 | 6.7 | 4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | <2 | 3.7 | 16 | <2 | <2 | <2 | <2 | 3.9 | 3.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/8/2008 | <2 | < 0.2 | < 0.12 | 0.776 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | 0.242 | 0.09 | < 0.2 | < 0.2 | 0.168 | < 0.16 | 0.202 | < 0.24 | < 0.24 | < 0.24 |
| | 5/22/2009 | <2 | 1.63 | 47 | 118 | 16.5 | 2.262 | 75.91 | 4.075 | 2.927 | 13.61 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.18 | < 0.24 | < 0.24 | < 0.24 |
| | 11/5/2009 | <2 | 0.89 | 1.774 | 6.8 | 0.061 | 0.197 | 0.308 | 0.191 | 0.795 | 0.289 | <2000 | < 0.2 | 0.168 | 0.168 | 0.272 | < 0.24 | < 0.24 | 0.321 |
| | 4/29/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/11/2010 | <1 | 8.18 | 35.7 | 93.2 | 0.826 | 1.41 | 1.05 | 3.71 | 8.17 | 4.74 | 0.982 | 0.837 | 1.48 | < 0.16 | 0.748 | 0.297 | < 0.16 | 0.37 |
| | 4/7/2011 | <1 | 0.719 | 5.92 | 17.9 | 0.196 | 0.436 | 0.289 | 0.532 | 2.8 | 1.08 | 0.262 | 0.235 | 0.267 | < 0.16 | 0.184 | < 0.2 | < 0.16 | < 0.16 |
| | 10/17/2011 | <1 | 1.22 | 8.89 | 24.3 | < 0.08 | 0.568 | < 0.08 | 0.782 | 1.52 | 1.55 | 0.292 | 0.289 | 0.234 | < 0.16 | 0.226 | <0.2 | < 0.16 | <0.16 |
| | 4/17/2012 | <1 | 1.39 | 10.7 | 37.9 | 1.76 | 0.555 | 0.123 | 0.484 | 0.39 | 0.153 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/22/2012 | <1 | 1.31 | 3.31 | 21.5 | <0.08 | 0.579 | < 0.08 | 0.34 | 0.508 | 0.172 | <0.1 | <0.1 | 0.203 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 5/8/2013 10/2/2013 | <1 | 0.512 | 2.37 | 8.9 | <0.08 | 0.286 | 0.248 | 0.269 | 0.303 | 0.126 | <0.1 | <0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | < 0.16 |
| | 4/23/2014 | <1 <1 | 0.67 1 | 3.68 4.89 | 8.66 47.2 | <0.08 0.215 | 0.245 0.533 | 0.168(B) 0.305 | 0.36 0.519 | 0.423 0.411 | 0.231 0.244 | <0.1 <0.1 | <0.1 <0.1 | <0.16 <0.16 | <0.16 <0.16 | <0.16 <0.16 | <0.2 <0.2 | <0.16 <0.16 | <0.16 <0.16 |
| | 10/7/2014 | <1 | < 0.1 | 0.639 | 6.84 | < 0.08 | 0.333 | < 0.08 | < 0.08 | 0.411 | < 0.08 | <0.1 | <0.1 | < 0.16 | <0.16 | <0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/13/2015 | | ooded below | | | | | | \0.00 | 0.003 | \0.00 | √ 0.1 | √ 0.1 | <0.10 | \0.10 | √ 0.10 | <0.∠ | <0.10 | <0.10 |
| | 11/13/2015 | <1 | < 0.1 | <0.1 | <0.1 | <0.08 | < 0.08 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | | ooded below | | | | | | νο.σσ | νο.σσ | νο.σσ | VO.1 | VO.1 | 10.10 | .0.10 | .0.10 | 10.2 | NO.10 | VO.10 |
| | 10/28/2016 | <1 | 0.734 | 5.52 | 22.2 | < 0.08 | 0.504 | 0.259(B) | 0.116 | 1.13 | 0.631 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/24/2017 | | ooded below | | | | | | 0.110 | | 0.001 | | | .0.10 | | | | | |
| | 10/26/2017 | <10 | 3.48 | 34 | 71 | 1.11 | 1.18 | (B) 4.26 | 3.98 | 5.7 | 2.72 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/25/2018 | <10 | <2 | 4.24 | 45.5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| L | ., 25, 2515 | | | | | - | | | | | | | | | | | | | |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| | | | | | | | | | | | | 4) | | | | | | | |
|---------|-------------------------|-------------------|---------------------|---------------------|---------------------|---------------------------|----------------|------------------|------------|--------------|-------------|----------------------|------------|---------------------------|---------------------------|------------------|-----------------------------|-------------------------------|---------------------------|
| Well | Date | Pentachlorophenol | Carbazole* | Fluorene | Acenaphthene | Naphthalene | Acenaphthylene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo [a] anthracene | Chrysene | Benzo [b] fluoranthene | Benzo [k] fluoranthene | Benzo [a] pyrene | Indeno [1,2,3-cd] pyrene | Dibenzo [a,h] anthracene * | Benzo [g,h,i] perylene |
| ID | Sampled | (µg/L) | (µg/L) | (µg/L) | $(\mu g/L)$ | $(\mu g/L)$ | (µg/L) | (µg/L) | (µg/L) | (µg/L) | $(\mu g/L)$ | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) |
| Cleanup | Levels (µg/L) | 1 | | 240 | 370 | 6.2 | 940 | 470 | 1800 | 1500 | 180 | 0.2 | 9.2 | 0.2 | 0.92 | 0.2 | 0.2 | | 470 |
| RW-8 | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | <20000 | <10000 | 123000 | 172000 | 89600 | <4000 | 365000 | 64000 | 173000 | 150000 | 25500 | 24000 | 13400 | 5310 | 7750 | <4000 | <4000 | <4000 |
| | 10/29/1999 | <200000 | <100000 | 522000 | 787000 | 385000 | <40000 | 1760000 | 324000 | 524000 | 579000 | 125000 | 127000 | <40000 | <40000 | <40000 | <40000 | <40000 | <40000 |
| | 1/25/2000 | <200000 | 28400 | 499000 | 662000 | 327000 | <40000 | 1400000 | 247000 | 649000 | 459000 | 109000 | 106000 | 73500 | 22000 | 62200 | <40000 | <40000 | <40000 |
| | 4/25/2000 | <10000 | <5000 | 5250 | 7250 | 3820 | <2000 | 15400 | 2890 | 7610 | 4520 | <2000 | <2000 | <2000 | <2000 | <2000 | <2000 | <2000 | <2000 |
| | 7/27/2000 | 159 | 146 | 1440 | 1330 | 1020 | <2 | 2700 | 822 | 1300 | 1510 | 345 | 304 | 118 | 43.4 | 92 | 31.2 | 11.9 | 27.1 |
| | 1/31/2001 | 172 | <50 | 282 | 442 | 210 | <20 | 712 | 138 | 288 | 280 | 55.2 | 53.6 | 22.1 | <20 | <20 | <20 | <20 | <20 |
| | 7/30/2001 | 76.9 | 6.23 | 48 | 121 | 10.5 | 2.64 | 23.6 | 6.56 | 11.9 | 7.69 | <2.28 | <2.28 | <2.28 | <2.28 | <2.28 | <2.28 | <2.28 | <2.28 |
| | 8/28/2002 | <10 | 23 | 74 | 160 | 23 | <2 | 84 | 15 | 26 | 17 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/5/2003 | <10 | 6.3 | 97 | 220 | 44 | 2.9 | 110 | 15 | 40 | 29 | 5.5 | 5.2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | 27 | 77 | 160 | 17 | 3.2 | 65 | 11 | 22 | 13 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | 20 | 56 | 150 | 15 | 2.5 | 49 | 150 | 24 | 14 | 3.2 | 3.2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 | <20 | 36 | 190 | 330 | 230 | 6.2 | 220 | 34 | 46 | 28 | 5.3 | 4.8 | <4 | <4 | <10 | <4 | <4 | <4 |
| | 2/21/2005 | <10 | 21 | 53 | 140 | 10 | <2 | 34 | 9 | 12 | 7.3 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/22/2005 | <50 | 54 | 250 | 440 | 220 | <10 | 470 | 88 | 190 | 120 | 32 | 36 | 12 | 11 | <30 | <10 | <10 | <10 |
| | 2/21/2006 | <10 | 8.5 | 43 | 120 | 11 | 3.2 | 27 | 4.4 | 150 | 7.1 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/21/2006 | <10 | 6.2 | 33 | 98 | 6.9 | <2 | 10 | 4.2 | 9.8 | 5.4 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/5/2006 | <10 | 12 | 35 | 88 | 12 | <2 | 25 | 5.7 | 12 | 7.3 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/20/2006 | <10 | 4.6 | 20 | 55 | 8 | <2 | 13 | 3.6 | 9 | 5.9 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | 5 | 25 | 53 | 7.2 | <2 | 23 | 4.4 | 6.9 | 5.7 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/8/2008 | <2 | <0.2 | 2.42 | 2.69 | 0.062 | 0.136 | < 0.08 | < 0.08 | 1.314 | 0.21 | 0.218 | 0.406 | 0.696 | 0.374 | 0.532 | < 0.24 | < 0.24 | 0.3 |
| | 11/5/2009 | 3.14 | 2.87 | 8.85 | 21.5 | 3.385 | 0.130 | 8.731 | 1.703 | 9.88 | 5.037 | 1.542 | 1.055 | 2.182 | 0.841 | 1.141 | 0.676 | 0.305 | 0.582 |
| | 4/29/2010 | <20 | <2 | 21.3 | 111 | 0.925 | 2.535 | 1.359 | 2.963 | 16.9 | 9.36 | 2.854 | 2.511 | 5.195 | <1.6 | 1.96 | 2.4 | <2.4 | <2.4 |
| | 10/12/2010 | <10 | 36.8 | 62.4 | <2 | 39.6 | 2.333 | 36 | 8.97 | 20.9 | 13.1 | 1.78 | 1.39 | 2.1 | <1.6 | 2.11 | 2.4 <2 | <1.6 | <1.6 |
| | 4/7/2011 | <10 | 12.9 | 27.3 | 84.5 | 4.1 | 1.42 | 9.34 | 5.2 | 23.4 | 14.6 | 3.4 | 2.73 | 2.72 | <1.6 | 2.11 | <2 | <1.6 | <1.6 |
| | 10/18/2011 | <10 | 6980 | 25.7 | 75.2 | 5.62 | 0.876 | 10.2 | 4.01 | 10.6 | 6.14 | 3.4 <1 | 2.73 <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 4/17/2012 | <10 | <1 | <1 <1 | 12 | < 0.8 | <0.8 | <0.8 | < 0.8 | < 0.8 | <0.14 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 10/23/2012 | <10 | 16.7 | 33.4 | 105 | <0.8 9.14 | <0.8 1.4 | 5.78 | 3.72 | 6.26 | 3.84 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | 5/8/2013 | <10 | 0.418 | 2.34 | 9.84 | < 0.08 | 0.244 | 0.258 | 0.318 | 0.276 | 0.125 | <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | <0.16 | < 0.16 |
| | 10/2/2013 | <1 | 9.78 | 11.1 | 23.9 | <0.08 11.4 | 0.244 | 0.238 4.14(B) | 1.45 | 2.4 | 1.3 | 0.146 | 0.153 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 4/23/2014 | <1 | 12.9 | 9.02 | 45.2 | 8.39 | 0.647 | 4.14(B) 2.75 | 0.684 | 1.08 | 0.572 | < 0.146 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | <0.2 | < 0.16 | <0.16 |
| | 10/8/2014 | <1 <1 | 6.62 | 5.97 | 45.2 33.9 | 0.739 | 0.52 | 0.520 | 0.684 | 0.709 | 0.572 | <0.1 <0.1 | <0.1 | < 0.16 | < 0.16 | <0.16 | <0.2 | <0.16 | < 0.16 |
| | 4/13/2015 | | | | | | | | 0.402 | 0.709 | 0.232 | <0.1 | <0.1 | <0.10 | <0.10 | <0.10 | <0.2 | <0.10 | <0.10 |
| | 4/13/2015 11/13/2015 | <1 | ooded below 9.90 | grade surra 12.7 | ce compieti 44.4 | on, therefore 22.2 | 0.812 | - | 1.80 | 2.27 | 1.31 | < 0.1 | 0.186 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | | | | | | | 6.20 | 1.80 | 2.21 | 1.51 | <0.1 | 0.180 | <0.10 | <0.10 | <0.10 | <0.2 | <0.10 | <0.10 |
| | 10/28/2016 | | ooded below | _ | • | | | | 1.00 | 1 20 | ۰۵ ۵۵ | -1 | -1 | -1.6 | -1.6 | -1.6 | -2 | -1.6 | -1.6 |
| | 4/24/2016 | <10 | < 0.1 | 13.9 | 57.8 | 2.16 | < 0.8 | 1.38(B) | 1.08 | 1.38 | < 0.08 | <1 | <1 | <1.6 | <1.6 | <1.6 | <2 | <1.6 | <1.6 |
| | | | ooded below 77.5 | grade surfa 494 | ce completi | on, therefore 382 | | - | 207 | 666 | 422 | 122 | 115 | 21.0 | 19.4 | 40.6 | <20 | -16 | -16 |
| | 10/26/2017 | <100 | | | | | 9.7 | 1340 | 207 | 666 | 433 | 122 | 115 | 21.9 | 19.4 | 40.0 | <20 | <16 | <16 |
| | 4/23/2018 | FIG | ooded below | grade surfa | ce completi | on, therefore | e wen was r | iot sampied. | | | | | | | | | | | |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID Cleanup I | Date Sampled Levels (µg/L) | 1 (π/G) Pentachlorophenol | - (η/Sαrbazole* | enough (µg/L) 240 | (L)(Squ) (A)(Squ) (A)(Squ) | Naphthalene (µg/L) (6.2 | (L/Quant) (A/Quant) (A/Qua | (L) Phenanthrene (470) | Anthracene (T/Sd) | (T) Fluoranthene | 180 (T/Sm) | (L) Benzo [a] anthracene 0.2 | Chrysene (hg/L) | μος [b] (πον βαμος [c] (πον βαμος [| (fluoranthene (k) (h) (h) (h) (h) (h) (h) (h) (h) (h) (h | (L) Benzo [a] pyrene 0.2 | 75 (1,2,3-cd) | m Dibenzo [a,h] [7] anthracene * | oca Benzo [g,h,i] OC T perylene |
|-------------------------|----------------------------------|---------------------------|-----------------|-------------------------|----------------------------------|-------------------------|--|------------------------|-------------------|------------------|------------|---------------------------------|-----------------|---|--|-----------------------------|---------------|----------------------------------|------------------------------------|
| Barnes | | | | | | | | | | | | | | | | | | | |
| | 1/25/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/25/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/27/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/3/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/23/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/28/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/18/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 5/21/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 10/12/2010 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/17/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/18/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/3/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/22/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/6/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/15/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 11/10/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/25/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| _ | | | | | | | | | | | | | | | | | | | |
|-----------------------|----------------------------------|--|---------------------|------------------------|-----------------------------------|--------------------|----------------------|-------------------------|----------------------------|--------------------|---------------|---------------------------------|-------------------------|----------------------|--|----------------------------|---------------------------------------|------------------------------------|-----------------|
| Well ID Cleanup | Date Sampled Levels (µg/L) | $\overset{(n)}{(1)} Pentachlorophenol$ | π) (T/Carbazole* | enene (µg/L) 240 | (L) Acenaphthene (A) Acenaphthene | Naphthalenc (Hg/L) | Acenaphthylene (7/P) | (L) Phenanthrence (470) | (L/San) (D/San) 0081 | (T/S) Fluoranthene | (hg/L) Pyrene | μς/ Benzo [a] anthracene 0.2 | oueschild (µg/L) 9.2 | Benzo [b] (mg/L) 0.2 | (Toronauthene (T | μς Benzo [a] byrene 0.2 | (77 and 172,3-cd) (77) (97) (12,3-cd) | ் Dibenzo [a,h] ரே anthracene * | A Benzo [g,h,i] |
| Neeley | | | | | | | | | | | | | | | | | | | |
| | 1/25/2000 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 1/25/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 7/31/2001 | <10 | <5 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| | 8/27/2002 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/3/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/27/2003 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/25/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/24/2004 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/22/2005 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/23/2005 | <10 | <2 | <2 | <2 | <2 | 2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 2/23/2006 | <10 | <2 | <2 | <2 | <2 | 2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 8/28/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/9/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 12/18/2006 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 3/22/2007 | <10 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <5 | <2 | <2 | <2 |
| | 10/22/2008 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | 0.168 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/21/2009 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 5/4/2010 | <2 | < 0.2 | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| | 4/13/2011 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/12/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/18/2012 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 5/2/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | <16000 | < 0.16 |
| | 10/3/2013 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/22/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/6/2014 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/15/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 11/10/2015 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/5/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/25/2016 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/27/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 10/25/2017 | <1 | < 0.1 | < 0.1 | < 0.1 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.1 | < 0.1 | < 0.16 | < 0.16 | < 0.16 | < 0.2 | < 0.16 | < 0.16 |
| | 4/26/2018 | <1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |

Table E.1. Summary of Pentachlorophenol and PAHs in groundwater, Old Midland Products Superfund Site.

| Well ID Cleanup I | Date Sampled ævels (µg/L) | $\begin{matrix} \overset{(n)}{\text{T}} \\ \text{T} \end{matrix} \text{Pentachlorophenol}$ | -i σπ) (T/Carbazole* | ena- lig/L) (µg/L) 240 | (L) A cenaphthene (J/B/M) | ναρητησίευς (μg/L) 6.2 | (L) Acenaphthylene (1966) | (J/Bd) (Phenanthrene (A70 | (LZ/gm) (A/gm) (MR) (MR) (MR) (MR) (MR) (MR) (MR) (MR | (T/Sm) Fluoranthene | (NZ/F) Pyrene | (T) Benzo [a] anthracene (T) Benzo [a] anthracene | ourysene (µg/L) 9.2 | Benzo [b] (Hancanthene 0.2 | (Then the sense of | $_{(\mu Q)}^{(pq)}$ Benzo [a] bàrene 0.2 | 7.0 m Indeno [1,2,3-cd] (7 pyrene | The Dibenzo [a,h] The Dibenzo [a,h] The Dibenzo [a,h] | 77 Benzo [g,h,i] OT perylene |
|-------------------------|--------------------------------------|--|-------------------------|---------------------------------|---------------------------|------------------------------|---------------------------|---------------------------------|---|------------------------|-------------------------|--|---------------------------|----------------------------|--|--|-----------------------------------|---|---------------------------------|
| P-2D | 9/23/2008 | n/a | n/a | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| P-2S | 9/23/2008 | n/a | n/a | <0.12 | <0.12 | < 0.04 | <0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | <0.24 | < 0.24 | <0.24 |
| P-3D | 9/24/2008 | n/a | n/a | < 0.12 | < 0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.08 | < 0.2 | < 0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |
| P-3S | 9/24/2008 | n/a | n/a | < 0.12 | <0.12 | < 0.04 | < 0.08 | < 0.08 | < 0.08 | <0.08 | <0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | <0.24 | <0.24 | <0.24 |
| P-4D | 10/13/2008 | n/a | n/a | <0.12 | <0.12 | < 0.04 | <0.08 | 0.458 | <0.08 | 0.258 | 0.118 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | <0.24 |
| P-4S | 10/13/2008 | n/a | n/a | < 0.12 | <0.12 | < 0.04 | <0.08 | 0.568 | < 0.08 | 0.394 | 0.194 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | <0.24 | < 0.24 | <0.24 |
| P-5D | 10/16/2008 | n/a | n/a | <0.12 | <0.12 | < 0.04 | <0.08 | <0.08 | <0.08 | 0.096 | <0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | <0.24 | < 0.24 | <0.24 |
| P-5S | 10/16/2008 4/29/2010 4/16/2015 | n/a n/a <1 | n/a n/a n/a | <0.12 <0.12 <0.12 | <0.12 <0.12 <0.12 | <0.04 <0.04 <0.04 | <0.08 <0.08 <0.08 | 0.102 <0.08 <0.08 | <0.08 <0.08 <0.08 | 0.12 <0.08 <0.08 | <0.08 <0.08 <0.08 | <0.2 <0.2 <0.2 | <0.2 <0.2 <0.2 | <0.16 <0.16 <0.16 | <0.16 <0.16 <0.16 | <0.16 <0.16 <0.16 | <0.24 <0.24 <0.24 | <0.24 <0.24 <0.24 | <0.24 <0.24 <0.24 |
| P-6D | 10/14/2008 | n/a | n/a | <0.12 | <0.12 | < 0.04 | <0.08 | 0.236 | < 0.08 | 0.18 | 0.092 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | <2.4 | < 0.24 | <0.24 |
| P-7S | 10/17/2008 | n/a | n/a | <0.12 | <0.12 | < 0.04 | <0.08 | 0.082 | <0.08 | 0.096 | <0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | <0.24 | < 0.24 | <0.24 |
| P-8S | 10/17/2008 | n/a | n/a | <0.12 | <0.12 | < 0.04 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.2 | <0.2 | < 0.16 | < 0.16 | < 0.16 | < 0.24 | < 0.24 | < 0.24 |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| | | | en Reduction Potential | dved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | lved Manganese | Total Iron | Dissolved Iron | Determined Ferrous (Fe2+) | Ferric Iron (Fe3+) | ą. | ride | Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | ane | ne | ae |
|-------|-------------------------|------------|------------------------|------------------|----------------------|-----------------|----------------|-------------|----------------|------------------------------|--------------------|--------------|------------|-----------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| Well | Sampling | Hd | Oxygen (ORP) | Dissolved | Nitra | Total | Dissolved | Total | Disso | Field Iron (| Ferri | Sulfate | Chloride | Total | Total | 2-Ch | 2,6-D | 2,4-D | Methane | Ethane | Ethene |
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | $(\mu g/L)$ | $(\mu g/L)$ | $(\mu g/L)$ | (mg/L) | (mg/L) | (mg/L) |
| MW-1S | | | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/26/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/18/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/24/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/23/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2002 3/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 1.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.3 <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2004 | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a n/a | <1 | n/a | n/a n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a n/a | n/a n/a | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a | n/a n/a | n/a n/a | n/a | <1 | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 9/27/2006 | 5.4 | 221 | 1.0 | 0.34 | n/a | n/a | 1.4 | n/a | n/a | n/a | 2.2 | 32 | 23 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/18/2006 | 5.2 | 239 | 7.4 | 0.37 | n/a | n/a | 0.061 | n/a | n/a | n/a | 1.7 | 35 | 19 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 5.6 | 192 | 0.8 | 0.24 | n/a | n/a | 0.2 | n/a | n/a | n/a | 1.4 | 39 | 17 | <1 | n/a | n/a | n/a | < 0.01 | < 0.02 | < 0.02 |
| | 10/1/2008 | 5.6 | 157 | 0.5 | 0.27 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 1.6 | 38 | 20 | 2.45 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/18/2009 | 5.5 | 93 | 0.8 | 0.27 | n/a | n/a | 0.035 | n/a | n/a | n/a | 1.65 | 40 | 22.4 | 0.435 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/4/2009 | 5.5 | 192 | 0.0 | 0.316 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 1.56 | 39 | 28.9 | 0.373 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.1 | 225 | 0.0 | 0.258 | n/a | n/a | 0.0369 | n/a | n/a | n/a | 1.58 | 40.1 | 49 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2010 | 6.0 | 257 | 0.3 | 0.097 | n/a | n/a | 0.0508 | n/a | n/a | n/a | 1.63 | 40.2 | 28.1 | 0.275 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/4/2011 | 5.4 | 230 | 1.3 | 0.389 | n/a | n/a | 0.0618 | n/a | n/a | n/a | 1.79 | 39.8 | 21.5 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2011 | 5.8 | 178 | 0.0 | 0.292 | n/a | n/a | n/a | n/a | n/a | n/a | 1.86 | 42.1 | 30.1 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/10/2012 | 5.6 | 286 | 0.1 | 0.28 | n/a | n/a | n/a | n/a | n/a | n/a | 1.57 | 40.4 | 21.8 | 0.26 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2012 | 5.1 | 201 | 0.4 | 1.15 | n/a | n/a | n/a | n/a | n/a | n/a | 2.05 | 30.2 | 13.9 | 0.541 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/2/2013 | 5.8 | 235 | 0.6 | 0.473 | n/a | n/a | n/a | n/a | n/a | n/a | 1.5 | 37 | 19.2 | 0.223 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 5.4 | 218 | 0.5 | 0.521 | n/a | n/a | n/a | n/a | n/a | n/a | 2.03 | 32.7 | 21 | 0.233(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 5.3 | 201 | 4.2 | 0.282 | 0.0095 | n/a | 0.02 | n/a | <0.5 | n/a | 1.39 | 39.9 | 21 | 0.295 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 5.2 | 237 | 0.5 | 0.358 | 0.065 | n/a | 0.030 | n/a | <0.5 | n/a | 1.76 | 35.6 | 20.3 | 0.298 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 5.4 | 266 | 1.4 | 0.318 | 0.0115 | n/a | < 0.020 | n/a | < 0.5 | n/a | 1.61 | 41.2 | 20.8 | 0.223 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 11/13/2015 | 6.1 | 76 | 2.2 | 0.317 | 0.128 | n/a | < 0.020 | n/a | < 0.5 | n/a | 1.59 | 41.8 | 17.2 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 5.8 | 200 | 5.5 | 0.239(B) | 0.00842 | n/a | 0.0243 | n/a | < 0.5 | n/a | 1.39 | 43.8(B) | 21.1 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/27/2016 4/24/2017 | 5.5 | 215 224 | 1.1 | 0.236(B) | 0.154 2.29 | n/a | <0.2 | n/a | <0.5 | n/a | 1.52 | 44.1 | 19.4 21.2 | <1 | <0.2 | <0.2 | 0.292 | n/a | n/a | n/a |
| | 4/24/2017 10/24/2017 | 5.6 | 8 | 0.8 1.0 | 0.208 0.183 | < 0.1 | n/a | 1.1 <0.5 | n/a | <0.5 | n/a | 1.37 2.02 | 44.7 | 21.2 | <1 <1 | <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | | 5.5 | | | | | n/a | | n/a | <0.5 | n/a | | 41.4 | | | <0.2 | | | n/a | n/a | n/a |
| | 4/25/2018 | 5.5 | 181 | 2.3 | 0.238 | n/a | n/a | 0.0229 | n/a | < 0.5 | n/a | 1.77 | 43.4 | 21.2 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | нd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|---------|-----------------------|------------|--------------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|--------------------------------------|--------------------|------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (III V S) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-1D | | | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/26/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/18/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/24/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/23/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2002 3/3/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/3/2003 8/26/2003 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <1 1.6 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 2/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 9/27/2006 | 6.7 | -101 | 0.5 | < 0.05 | n/a | n/a | 1.6 | n/a | n/a | n/a | < 0.2 | 6.7 | 160 | <1 | n/a | n/a | n/a | 0.33 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.6 | -140 | 1.5 | < 0.05 | n/a | n/a | 1.9 | n/a | n/a | n/a | n/a | 5.6 | 170 | 1 | n/a | n/a | n/a | 0.21 | < 0.02 | < 0.01 |
| | 3/20/2007 | 6.9 | -89.1 | 0.4 | < 0.05 | n/a | n/a | 1.6 | n/a | n/a | n/a | 0.49 | 6.1 | 170 | <1 | n/a | n/a | n/a | 0.67 | < 0.02 | < 0.02 |
| | 9/30/2008 | 6.7 | -104 | 0.1 | < 0.01 | n/a | n/a | 1.5 | n/a | n/a | n/a | 0.48 | 5.8 | 177 | 0.339 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/18/2009 | 6.8 | 84.4 | 0.3 | 0.024 | n/a | n/a | 0.901 | n/a | n/a | n/a | 0.55 | 6.55 | 173 | 0.339 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/5/2009 | 7.2 | -92.0 | 0.0 | < 0.01 | n/a | n/a | 1.42 | n/a | n/a | n/a | 0.11 | 5.91 | 178 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 1.0 | 254 | 5.3 | 0.031 | n/a | n/a | 0.804 | n/a | n/a | n/a | 0.4 | 5.77 | 62 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2010 | 7.2 | -108 | 0.0 | < 0.01 | n/a | n/a | 1.81 | n/a | n/a | n/a | 0.24 | 5.95 | 180 | 0.236 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/4/2011 | 6.6 | 76.0 | 7.3 | 0.098 | n/a | n/a | 0.452 | n/a | n/a | n/a | 0.54 | 6.28 | 196 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2011 | 7.2 | -111 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.41 | 6.42 | 180 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/10/2012 | 7.1 | 14.0 | 1.1 | 0.036 | n/a | n/a | n/a | n/a | n/a | n/a | 0.36 | 6.11 | 180 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2012 | 7.0 | -88.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.33 | 7.23 | 166 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/2/2013 | 7.4 | 132 | 0.0 | 0.103 | n/a | n/a | n/a | n/a | n/a | n/a | 0.45 | 6.8 | 173 | 1.07 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 9/30/2013 | 7.2 | -108 | 2.0 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 0.23(B) | 7.28 | 175 | 0.255(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 6.9 | 145 | 3.5 | 0.114 | 0.0568 | n/a | 0.275 | n/a | < 0.5 | n/a | 0.36 | 7.47 | 170 | 0.272 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 6.8 | -57.5 | 0.3 | 0.034 | 0.264 | n/a | 1.54 | n/a | 1.5 | 0.0 | 0.45 | 6.98 | 175 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 6.7 | 33.4 | 1.1 | 0.048 | 0.155 | n/a | 0.509 | n/a | < 0.5 | n/a | 0.68 | 6.42 | 172 | 0.326 | <0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/13/2015 | 7.5 | 42.4 | 1.1 | <0.03 | 0.272 | n/a | 1.76 | n/a | 1.5 | 0.3 | 0.78 | 6.90 | 171 | <1 | <0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 7.4 | 131.0 | 6.6 | 0.108(B) | 0.0182 | n/a | 0.148 | n/a | < 0.5 | n/a | 0.8 | 6.72(B) | 172 | <1 | <0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/27/2016 | 7.1 | -95 | 0.9 | < 0.03 | 0.292 | n/a | 1.07 | n/a | 1 | 0.1 | 1.33 | 7.20 | 167 | <1 | <0.2 | <0.2 | 0.379 | n/a | n/a | n/a |
| | 4/24/2017 | 7.2 | 66 | 2.1 | 0.093 | 0.046 | n/a | 0.365 | n/a | < 0.5 | n/a | 0.98 | 6.60 | 179 | 1.8 | <0.2 | <0.2 | 0.317 | n/a | n/a | n/a |
| | 10/24/2017 | 7.0 7.0 | -26 | 0.9 | < 0.05 | 0.293 | n/a | 0.952 | n/a | 1 | n/a | 1.53 | 6.63 | 162 | <1 | <0.2 | <0.2 | 0.279 | n/a | n/a | n/a |
| <u></u> | 4/25/2018 | 7.0 | 40 | 2.7 | 0.106 | n/a | n/a | 0.205 | n/a | <0.5 | n/a | 1.25 | 6.38 | 173 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | m Oxygen Reduction Potential s (ORP) | bissolved Oxygen (DO) | (T) Nitrate-Nitrite as N | (T/ Total Manganese | m reg Dissolved Manganese | (mg/L) | (mg/L) | B Field Determined Ferrous | of Tric Iron (Fe3+) | Sulfate (mg/L) | Chloride (mg/L) | (Total Alkalinity [as CaCO3] | m Total Organic Carbon | m de 2-Chlorophenol (⊤) | ng 2,6-Dichlorophenol | m 2,4-Dichlorophenol | Methane (mg/L) | Ethan Ethan (L/gm) | Ethene (mg/L) |
|------------|------------------------|------------|---|-----------------------|--------------------------|---------------------|------------------------------|-------------|------------|----------------------------|---------------------|----------------|-----------------|------------------------------|---------------------------|----------------------------|-----------------------|----------------------|----------------|--------------------------|----------------|
| MW-3S | | | | | | | | | | | | | | | | | | | | | |
| | 7/15/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 19.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/26/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 820 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 24.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/24/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 24.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 28.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 15 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 9.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 7.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/22/2005 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 12 | n/a | n/a | n/a | n/a | n/a | n/a |
| | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 8/22/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 27 17 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/9/2006 | n/a | n/a -51.2 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a 120 | n/a | n/a | | n/a | n/a | n/a | n/a | n/a | n/a |
| | 12/21/2006 | 5.9 5.8 | -31.2 14.0 | 2.1 0.1 | <0.05 <0.05 | n/a n/a | n/a n/a | 3.1 2.2 | n/a n/a | n/a n/a | n/a n/a | 130 | 130 130 | 160 140 | 5.8 4.2 | n/a n/a | n/a n/a | n/a n/a | <0.1 <0.1 | <0.02 <0.02 | <0.01 <0.01 |
| | 3/21/2007 | 5.8 6.0 | -99.5 | 0.1 | | | | 3.1 | | | | 250 | 300 | 200 | 5.9 | | | | 1.5 | <0.02 | <0.01 |
| | 5/20/2009 | 5.8 | -99.3 -194 | 0.6 | <0.05 <0.01 | n/a n/a | n/a | 4.14 | n/a n/a | n/a | n/a | 517 | 434 | 225 | 3.86 | n/a | n/a | n/a n/a | | | |
| | 11/4/2009 | 5.9 | -72.0 | 0.0 | < 0.01 | n/a n/a | n/a n/a | 3.01 | n/a | n/a n/a | n/a n/a | 462 | 393 | 233 | 4.8 | n/a n/a | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a |
| | 4/29/2010 | 6.2 | -92.0 | 0.0 | < 0.01 | n/a | n/a | 4.2 | n/a | n/a | n/a | 26 | 41.1 | 1260 | 5.43 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 6.1 | 8.0 | 0.0 | 0.011 | n/a | n/a | 2.62 | n/a | | n/a | 450 | 368 | 240 | 4.32 | | n/a | n/a | | n/a | |
| | 4/13/2011 | 5.4 | -4.0 | 0.4 | < 0.011 | n/a | n/a | 2.78 | n/a n/a | n/a n/a | n/a | 396 | 336 | 256 | 5.35 | n/a n/a | n/a | n/a | n/a n/a | n/a | n/a n/a |
| | 10/18/2011 | 6.2 | -43.0 | 0.4 | < 0.03 | n/a n/a | n/a | 2.76 n/a | n/a | n/a | n/a | 386 | 322 | 261 | 5.32 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2012 | 6.0 | -45.0 -45.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 572 | 375 | 276 | 5.23 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/23/2012 | 6.1 | -43.0 -64.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 420 | 311 | 276 | 5.23 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/6/2013 | 6.8 | -35.0 | 3.1 | 0.307 | n/a | n/a | n/a n/a | n/a n/a | n/a | n/a | 22.7 | 53.9 | 83.2 | 7.41 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2013 | 5.9 | 3.0 | 0.2 | < 0.03 | n/a n/a | n/a | n/a | n/a | n/a | n/a | 620(B) | 365 | 279 | 6.72(B) | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/23/2014 | 6.0 | -7.8 | 0.6 | < 0.03 | 19.7 | n/a | 3.94 | n/a | < 0.5 | n/a | 843 | 424 | 292 | 7.51 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 10/8/2014 | 5.9 | 11.0 | 0.0 | < 0.03 | 22.3 | n/a | 4.1 | n/a | 2 | 2.1 | 872 | 417 | 288 | 7.92 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/15/2015 | 6.0 | -33.0 | 1.0 | < 0.05 | 21.2 | n/a | 4.79 | n/a | 1.5 | 3.29 | 1040 | 474 | 315 | 13.6 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 11/13/2015 | 5.9 | 49.7 | 1.1 | <.3 | 22.1 | n/a | 4.54 | n/a | 1.5 | 3.04 | 781 | 425 | 309 | 9.52 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/5/2016 | 6.2 | -36.0 | 1.9 | < 0.15 | 16.2 | n/a | 3.69 | n/a | 2.5 | 1.19 | 1080 | 471 | 123 | 2.29 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 10/26/2016 | 5.8 | -116 | 0.8 | < 0.15 | 16.5 | n/a | 5.87 | n/a | 4.5 | 1.37 | 951 | 474 | <6 | 9.95 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/27/2017 | 6.0 | -11.0 | 1.7 | <0.15 | 25.0 | n/a | 5.89 | n/a | 2.5 | 3.39 | 1140 | 490 | 154 | 9.77 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/26/2017 | 6.0 | 3.2 | 1.1 | < 0.25 | 22.8 | n/a | 6.25 | n/a | 1.0 | 5.25 | 920 | 455 | 69.5 | 10.5 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/26/2018 | 6.2 | -176 | 1.0 | < 0.05 | n/a | n/a | 5.80 | n/a | 2.0 | 3.8 | 854 | 435 | 510 | 8.73 | <2 | <2 | <2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | Oxygen Reduction Potential (SA) (ORP) | (DO) Dissolved Oxygen (DO) | (Mg/L) Nitrate-Nitrite as N | (T) Total Manganese | (mg/L) Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous | (T) Ferric Iron (Fe3+) | Sulfate (mg/L) | Chloride | (Total Alkalinity [as CaCO3] | (T) Total Organic Carbon | 南 (丙) 2-Chlorophenol | (T ^G π) 2,6-Dichlorophenol | க் 7 2,4-Dichlorophenol | Methane (mg/L) | Ethane (L/gm) | Ethene (mg/L) |
|------------|-------------------------|------------|---|----------------------------|-----------------------------|---------------------|----------------------------|--------------|--------|--------------------------|------------------------|-------------------|------------|------------------------------|--------------------------|-------------------------|---------------------------------------|----------------------------|----------------|---------------|---------------|
| MW-3D | | | | | | | | | | | | | | | | | | | | | |
| 11111 525 | 7/15/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/26/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 13.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 24 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/24/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 6.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/9/2006 | 6.4 | 52.4 | 9.9 | < 0.05 | n/a | n/a | 5.5 | n/a | n/a | n/a | < 0.2 | 98 | 190 | 2.6 | n/a | n/a | n/a | 1.2 | < 0.02 | < 0.01 |
| | 12/21/2006 | 6.5 | -48.1 | 1.7 | < 0.05 | n/a | n/a | 4.7 | n/a | n/a | n/a | 0.34 | 64 | 140 | 3.7 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/21/2007 | 6.9 | -102 | 0.4 | n/a | n/a | n/a | 4.7 | n/a | n/a | n/a | 0.31 | 71 | 210 | 3.7 | n/a | n/a | n/a | 5.1 | < 0.02 | < 0.02 |
| | 5/20/2009 | 6.7 | -150 | 0.4 | 0.031 | n/a | n/a | 5.01 | n/a | n/a | n/a | 0.38 | 95.5 | 167 | 1.32 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/4/2009 | 6.6 | -50.0 | 0.0 | < 0.01 | n/a | n/a | 4.68 | n/a | n/a | n/a | 0.12 | 101 | 171 | 1.43 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/4/2010 | 6.8 | -109 | 0.0 | < 0.01 | n/a | n/a | 5.76 | n/a | n/a | n/a | 0.29 | 101 | 174 | 3.29 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2010 | 6.8 | -102 | 0.0 | 0.03 | n/a | n/a | 4.99 | n/a | n/a | n/a | 0 | 107 | 144 | 1.67 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/13/2011 | 5.9 | -97.0 | 0.3 | < 0.3 | n/a | n/a | 5.05 | n/a | n/a | n/a | 0.23 | 107 | 162 | 3.26 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2011 | 6.8 | -93.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.41 | 114 | 169 | 1.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2012 | 6.8 | -80.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.25 | 113 | 187 | 2.41 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/23/2012 | 6.8 | -100 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.24 | 114 | 161 | 1.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/6/2013 | 7.1 | -101 | 1.3 | < 0.3 | n/a | n/a | n/a | n/a | n/a | n/a | <0.02 | 110 | 190 | 2.96 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2013 | 6.6 | -70.0 | 0.3 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | <0.2(B) | 113 | 164 | 0.935(B) | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/23/2014 | 6.8 | -61.7 | 0.3 | < 0.15 | 0.652 | n/a | 5.53 | n/a | 2.5 | 3.03 | 0.23 | 114 | 174 | 2.2 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.6 | -44.0 | 0.3 | < 0.3 | 0.688 | n/a | 5.32 | n/a | 1.5 | 3.82 | < 0.2 | 109 | 169 | 1.09 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/15/2105 | 6.7 | -41.0 | 0.7 | < 0.15 | 0.561 | n/a | 4.80 | n/a | 1.0 | 3.8 | 2.04 | 106 | 151 | 3.97 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 11/13/2015 | 6.6 | 191 | 0.3 | < 0.3 | 0.51 | n/a | 5.16 | n/a | 4.5 | 0.66 | < 0.5 | 105 | 160 | 1.96 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/5/2016 | 7.0 | -92.0 | 1.4 | < 0.15 | 0.562 | n/a | 7.49 | n/a | 2 | 5.49 | <2.5 | 109 | 356 57.2 | <1 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 10/26/2016 4/27/2017 | 6.4 | -74.0 -77.4 | 0.4 | < 0.15 | 0.671 | n/a | 5.38 | n/a | 2.0 | 3.38 | <0.5 | 110 109 | 57.2 | 2 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 10/26/2017 | 6.7 | -77.4 -71.4 | 0.3 | <0.5 <0.25 | 0.666 | n/a | 5.44 | n/a | 3.0 | 2.44 3.89 | <0.5 | | <60 174 | 2.41 2.05 | <0.2 | <0.2 <2 | <0.2 <2 | n/a | n/a | n/a |
| | 4/26/2017 | 6.7 6.8 | -71.4 -174 | 0.3 | <0.25 | 0.644 | n/a | 5.39 5.23 | n/a | 1.5 1.5 | 3.89 | <1 <0.5 | 106 108 | 174 | 2.05 | <2 <2 | <2 <2 | <2 | n/a | n/a | n/a |
| L | 4/20/2018 | 0.8 | -1/4 | 0.4 | <0.03 | n/a | n/a | 3.23 | n/a | 1.3 | 3.13 | <0.5 | 108 | 100 | 2.44 | <.2 | <.2 | <.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Hd (SU) | B Oxygen Reduction Potential | mi Of Dissolved Oxygen (DO) | by Nitrate-Nitrite as N | (M/T) Total Manganese | (Mg) Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous | Man Ferric Iron (Fe3+) | Sulfate (mg/L) | Chloride (mg/L) | Total Alkalinity [as CaCO3] | Mary Total Organic Carbon | γ 2-Chlorophenol | та Ту 2,6-Dichlorophenol | राष्ट्री 2,4-Dichlorophenol | (T/Sum) | Ethane (T/Sm) | Ethene (mg/L) |
|----------|------------------------|------------|------------------------------|--------------------------------|-------------------------|-----------------------|--------------------------|-------------|-------------|--------------------------|------------------------|----------------|-----------------|-----------------------------|---------------------------|------------------|-----------------------------|-----------------------------|------------|---------------|---------------|
| ID | Date | (50) | (111 + 13) | (Hig/L) | (Hig/L) | (mg/L) | (IIIg/L) | (Hig/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (µg/L) | (μg/12) | (μg/12) | (Hig/L) | (Hg/L) | (Hg/L) |
| MW-5S | = 4.44000 | | | , | , | | , | , | , | , | , | | , | | | | | | , | | |
| | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/26/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/18/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/24/2000 1/23/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <10 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2006 | 6.3 | 104 | 0.7 | < 0.05 | n/a | n/a | 0.32 | n/a | n/a | n/a | 29 | 45 | 180 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/20/2006 | 6.4 | 291 | 0.2 | 0.24 | n/a | n/a | 3 | n/a | n/a | n/a | 22 | 49 | 170 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 6.5 | 166 | 0.4 | < 0.05 | n/a | n/a | 0.087 | n/a | n/a | n/a | 26 | 47 | 190 | 1.1 | n/a | n/a | n/a | < 0.01 | < 0.02 | < 0.02 |
| | 9/25/2008 | 6.3 | 160 | 0.2 | < 0.01 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 28.6 | 39.4 | 195 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/26/2009 | 6.8 | -90.1 | 0.6 | 0.054 | n/a | n/a | 0.216 | n/a | n/a | n/a | 0.82 | 98 | 189 | 0.839 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/10/2009 | 6.4 | 126 | 0.0 | < 0.01 | n/a | n/a | 0.0233 | n/a | n/a | n/a | 26.2 | 38.6 | 197 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 4.1 | 303 | 0.0 | < 0.01 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 31.2 | 41 | 175 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/7/2010 | 6.8 | 145 | 0.0 | < 0.01 | n/a | n/a | 0.0292 | n/a | n/a | n/a | 30.8 | 41.2 | 198 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/6/2011 | 6.5 | 106 | 1.3 | < 0.03 | n/a | n/a | 0.028 | n/a | n/a | n/a | 26.1 | 37.6 | 196 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2011 | 6.5 | 133 | 0.1 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 31.1 | 41.8 | 204 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/10/2012 | 6.6 | 220 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 27.6 | 34.8 | 197 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2012 | 6.5 | 82.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 29.9 | 37.6 | 203 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/30/2013 | 7.1 | 77.0 | 4.9 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 26.8 | 23.8 | 189 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.5 | 101 | 0.5 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 30.3 | 37.4 | 203 | <0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 6.3 | 149 | 0.6 | < 0.03 | 0.0245 | n/a | < 0.020 | n/a | <0.5 | n/a | 26.5 | 28.7 | 187 | <0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/9/2014 | 6.4 | 158 | 0.4 | < 0.03 | 0.398 | n/a | < 0.020 | n/a | < 0.5 | n/a | 28.9 | 33.9 | 197 | <0.2 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/16/2015 | 6.5 | 101 | 1.0 | 0.359 | 0.756 | n/a | < 0.020 | n/a | < 0.5 | n/a | 25.7 | 27.6 | 191 | 0.339 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 6.5 | 92.1 | 0.5 | < 0.03 | 0.028 | n/a | <0.020 | n/a | <0.5 | n/a | 28 | 31.6 | 200 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/4/2016 10/27/2016 | 6.6 | -75.8 232 | 0.3 0.6 | <0.03 <0.03 | 0.585 | n/a 0.298 | <0.020 | n/a <0.2 | <0.5 <0.5 | n/a | 26.5 30.9 | 28.7 39.8 | 195 188 | <1 | <0.2 | <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 4/27/2016 | 6.5 6.5 | 134 | 0.6 | <0.03 | n/a 0.233 | | n/a <0.5 | | <0.5 <0.5 | n/a | 25.2 | 39.8 | 188 196 | <1 <1 | <0.2 <0.2 | <0.2 <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.6 | 109 | 0.2 | < 0.05 | 0.233 | n/a | <0.5 | n/a n/a | <0.5 | n/a n/a | 32.6 | 42.8 | 196 | <1 | <0.2 | <0.2 | <0.2 | n/a n/a | n/a | n/a |
| | | 6.5 | 109 | 0.4 | <0.05 | | n/a | | | | | 32.6 29 | | | <1 <1 | <0.2 | <0.2 | <0.2 | | n/a | n/a |
| <u> </u> | 4/25/2018 | 0.3 | 102 | 0.5 | <0.05 | n/a | n/a | 0.00931 | n/a | <0.5 | n/a | 29 | 35.1 | 184 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Hd (SU) | Oxygen Reduction Potential (ORP) | md Agen (DO) | Mg/W Nitrate-Nitrite as N | Manganese (7/7) | ED Dissolved Manganese | Total Iron | (mg/L) Dissolved Iron | Field Determined Ferrous | Man Ferric Iron (Fe3+) | Sulfate (T/Sm) | Chloride (mg/r) | m (7/a Total Alkalinity [as CaCO3] | Man Total Organic Carbon | π 7 2-Chlorophenol | off T 2,6-Dichlorophenol | 77 2,4-Dichlorophenol | (T/Sum) | (Thane | Ethene (mg/L) |
|----------|------------------------|------------|--------------------------------------|--------------|---------------------------|-----------------|------------------------|---------------|-----------------------|--------------------------|------------------------|----------------|-----------------|---------------------------------------|--------------------------|-----------------------|-----------------------------|-----------------------|------------|------------|---------------|
| ID | Date | (50) | (111 7 5) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (Hig/L) | (IIIg/L) | (Hig/L) | (IIIg/L) | (IIIg/L) | (Hig/L) | (Hg/L) | (Hig/L) | (IIIg/L) | (µg/L) | (μg/L) | (µg/L) | (Hig/L) | (IIIg/L) | (IIIg/L) |
| MW-8S | = 4.44000 | | | | | , | , | , | , | , | , | , | | , | | , | | , | | , | , |
| | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/27/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/18/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/24/2000 1/23/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | 1.2 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/9/2006 | 5.6 | 168 | 4.0 | 0.52 | n/a | n/a | 0.96 | n/a | n/a | n/a | 62 | 93 | 46 | 1.4 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/19/2006 | 5.8 | 193 | 1.1 | 0.31 | n/a | n/a | 0.22 | n/a | n/a | n/a | n/a | 88 | 51 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/22/2007 | 5.8 | 163 | 0.7 | 0.11 | n/a | n/a | 0.37 | n/a | n/a | n/a | 110 | 90 | 73 | <1 | n/a | n/a | n/a | < 0.01 | < 0.02 | < 0.02 |
| | 10/17/2008 | 5.5 | 55.8 | 0.2 | 0.374 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 91.6 | 107 | 51.6 | 0.425 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/20/2009 | 5.7 | 24.6 | 0.2 | 0.425 | n/a | n/a | 0.417 | n/a | n/a | n/a | 121 | 149 | 55.9 | 0.736 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/3/2009 | 5.7 | 139 | 0.0 | 0.552 | n/a | n/a | 0.0621 | n/a | n/a | n/a | 171 | 181 | 52.6 | 0.475 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 4.5 | 282 | 0.0 | 0.397 | n/a | n/a | 0.558 | n/a | n/a | n/a | 168 | 152 | 275 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2010 | 5.9 | 132 | 0.1 | 0.312 | n/a | n/a | 0.204 | n/a | n/a | n/a | 169 | 156 | 46.8 | 0.423 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 5.1 | 159 | 0.8 | 0.396 | n/a | n/a | 0.228 | n/a | n/a | n/a | 208 | 161 | 57.9 | 0.503 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2011 | 5.8 | 174 | 0.0 | 0.379 | n/a | n/a | n/a | n/a | n/a | n/a | 188 | 138 | 50 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/11/2012 | 5.8 | 233 | 0.0 | 0.374 | n/a | n/a | n/a | n/a | n/a | n/a | 226 | 125 | 55.2 | 0.379 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2012 | 5.6 | 165 | 0.0 | 0.312 | n/a | n/a | n/a | n/a | n/a | n/a | 218 | 126 | 44.1 | 0.491 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/7/2013 | 6.2 | 165 | 0.0 | 0.423 | n/a | n/a | n/a | n/a | n/a | n/a | 243 | 108 | 64.8 | 0.656 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 9/30/2013 | 5.6 | 172 | 0.6 | 0.369 | n/a | n/a | n/a | n/a | n/a | n/a | 197(B) | 113 | 51.2 | 0.694(B) | <0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 5.8 | 155 | 0.6 | 0.277 | 0.040 | n/a | 0.362 | n/a | <0.5 | n/a | 249 | 97.8 | 69.9 | 0.64 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 5.7 | 207 | 0.5 | 0.315 | 0.062 | n/a | 0.096 | n/a | < 0.5 | n/a | 230 | 105 | 55.1 | 0.333 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 5.6 | 226 | 0.4 | 0.358 | 0.057 | n/a | 0.598 | n/a | < 0.5 | n/a | 276 | 107 | 64.2 | 0.764 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 5.5 | 110 | 0.4 | 0.256 | 0.615 | n/a | 0.626 | n/a | <0.5 | n/a | 278 | 105 | 67.9 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/6/2016 10/27/2016 | 5.8 | -60.3 217 | 0.7 0.8 | 0.145 | 0.0459 0.062 | n/a | 0.181 0.39 | n/a | <0.5 <0.5 | n/a | 273 250 | 93.4 96.4 | 83.9 104 | <1 <1 | <0.2 <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 4/27/2016 | 5.8 5.7 | 44.0 | 1.0 | 0.111(B) 0.167 | < 0.1 | n/a | < 0.5 | n/a | <0.5 <0.5 | n/a | 280 | 96.4 86.5 | 65 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/26/2017 | 5.7 5.7 | -11.5 | 0.3 | 0.167 | <0.1 | n/a | <0.5 <0.5 | n/a | <0.5 <0.5 | n/a | 280 176 | 86.5 81.8 | 44.3 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | | 5.7 | -11.5 -171 | | | | n/a | | n/a | | n/a | | | 57.1 | | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| <u> </u> | 4/26/2018 | ٥.0 | -1/1 | 0.7 | 0.198 | n/a | n/a | 0.0634 | n/a | <0.5 | n/a | 261 | 74.6 | 3/.1 | 1.16 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Нd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|-------|-----------------------|------------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-8D | | | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/27/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/18/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/24/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/23/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a | n/a n/a | <1 <1 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 2/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/10/2006 | 6.9 | -98.1 | 0.9 | < 0.05 | n/a | n/a | 1.2 | n/a | n/a | n/a | 5.6 | 13 | 170 | <1 | n/a | n/a | n/a | 0.12 | < 0.02 | < 0.01 |
| | 12/19/2006 | 7.0 | -44.9 | 2.3 | < 0.05 | n/a | n/a | 1.4 | n/a | n/a | n/a | n/a | 16 | 170 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/22/2007 | 7.1 | -74.6 | 1.5 | < 0.05 | n/a | n/a | 0.95 | n/a | n/a | n/a | 8.3 | 14 | 170 | <1 | n/a | n/a | n/a | 0.028 | < 0.02 | < 0.02 |
| | 9/26/2008 | 7.0 | -174 | 0.1 | < 0.01 | n/a | n/a | 0.834 | n/a | n/a | n/a | 4.42 | 9.42 | 188 | 0.223 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/21/2009 | 7.5 | -150 | 0.5 | 0.028 | n/a | n/a | 1.69 | n/a | n/a | n/a | 19.2 | 11.9 | n/a | 0.347 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/4/2009 | 7.1 | -112 | 0.0 | < 0.01 | n/a | n/a | 0.988 | n/a | n/a | n/a | 7.75 | 9.78 | 199 | 0.471 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 3.0 | 138 | 0.0 | < 0.01 | n/a | n/a | 0.754 | n/a | n/a | n/a | 4.51 | 10.9 | 104 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2010 | 7.6 | -113 | 0.0 | < 0.01 | n/a | n/a | 1.07 | n/a | n/a | n/a | 7.53 | 13.3 | 189 | 0.359 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 6.9 | -45.0 | 1.5 | < 0.03 | n/a | n/a | 0.496 | n/a | n/a | n/a | 6.74 | 12.7 | 201 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2011 | 7.7 | -122 | 0.0 | 0.069 | n/a | n/a | n/a | n/a | n/a | n/a | 9.68 | 13.3 | 203 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/11/2012 | 7.3 | -23.0 | 0.8 | 0.056 | n/a | n/a | n/a | n/a | n/a | n/a | 7.91 | 11.2 | 193 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2012 | 7.4 | -110 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 9.53 | 12.4 | 199 | 0.258 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/7/2013 | 7.8 | 20.0 | 2.0 | 0.041 | n/a | n/a | n/a | n/a | n/a | n/a | 12.7 | 10.9 | 195 | 0.304 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 9/30/2013 | 7.4 | -96.0 | 0.7 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 12.7(B) | 13.6 | 202 | 0.613(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 7.4 | 117 | 2.9 | 0.119 | 0.036 | n/a | 0.135 | n/a | < 0.5 | n/a | 15.9 | 13.4 | 197 | 0.36 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 7.7 | -120 | 0.3 | < 0.03 | 0.381 | n/a | 1.01 | n/a | 0.5 | 0.510 | 13.4 | 12.6 | 204 | 0.232 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 7.5 | -57.0 | 0.9 | < 0.03 | 0.379 | n/a | 0.824 | n/a | 0.5 | 0.324 | 11.3 | 13.6 | 208 | 0.966 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/12/2015 | 8.2 | 228 | 0.5 | <0.03 | 0.278 | n/a | 0.779 | n/a | 0.5 | 0.279 | 7.65 | 15.1 | 215 | <1 | <0.2 | < 0.2 | <0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 7.5 | -38 | 2.5 | 0.201(B) | 0.144 | n/a | 0.487 | n/a | < 0.5 | n/a | 17.7 | 16.2(B) | 186 | <1 | <0.2 | < 0.2 | <0.2 | n/a | n/a | n/a |
| | 10/27/2016 | 7.5 | -120 | 1.5 | < 0.03 | 0.314 | n/a | 1.33 | n/a | 1.5 | -0.17 | 15.1 | 18.2 | 206 | <1 | < 0.2 | <0.2 | 0.397 | n/a | n/a | n/a |
| | 4/27/2017 | 7.7 | -114 | 1.3 | 0.193 | < 0.1 | n/a | < 0.5 | n/a | 0.5 | n/a | 20.1 | 17.8 | 208 | <1 | < 0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/26/2017 | 7.5 | -49 | 1.0 | < 0.05 | 0.37 | n/a | 1.44 | n/a | 1.5 | n/a | 23.2 | 20.2 | 181 | <1 | < 0.2 | < 0.2 | 0.25 | n/a | n/a | n/a |
| | 4/26/2018 | 7.5 | 66 | 1.8 | 0.139 | n/a | n/a | 0.362 | n/a | < 0.5 | n/a | 24.4 | 20.1 | 186 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Hd (SU) | Oxygen Reduction Potential (ORP) | mi Or Dissolved Oxygen (DO) | (mg/Z) (of traite-Nitrite as N | (Manganese Total Manganese | M Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous | Marric Iron (Fe3+) | Sulfate (T/Sm) | Chloride (mg/r) | m (7/a Total Alkalinity [as CaCO3] | Man Total Organic Carbon | π 7 2-Chlorophenol | от (Т (Т) 2,6-Dichlorophenol | 77 2,4-Dichlorophenol | (T/Sum) | (Thane | Ethene (mg/L) |
|----------|------------------------|------------|--------------------------------------|--------------------------------|-----------------------------------|----------------------------|-----------------------|--------------|-----------------|--------------------------|--------------------|----------------|-----------------|---------------------------------------|--------------------------|-----------------------|------------------------------------|-----------------------|------------|------------|---------------|
| ID | Date | (30) | (111 v 3) | (mg/L) | (IIIg/L) | (mg/L) | (IIIg/L) | (IIIg/L) | (mg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (Hig/L) | (IIIg/L) | (mg/L) | (µg/L) | (μg/L) | (μg/L) | (IIIg/L) | (mg/L) | (IIIg/L) |
| MW-9S | = 4.44000 | | | , | | | , | , | | | , | , | | , | | , | | , | | , | , |
| | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/27/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 7/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 7/31/2001 | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | 2 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 11 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 13 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 21 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/10/2006 | 5.9 | 21.9 | 2.8 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| | 12/21/2006 | 5.9 | 268 | 1.3 | < 0.05 | n/a | n/a | 17 | n/a | n/a | n/a | 96 | 110 | 82 | 1.5 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/19/2007 | 6.2 | 115 | 0.5 | < 0.05 | n/a | n/a | 1.6 | n/a | n/a | n/a | 100 | 150 | 160 | 1.5 | n/a | n/a | n/a | < 0.01 | < 0.02 | < 0.02 |
| | 10/14/2008 | 6.4 | -90.4 | 1.7 | 0.037 | n/a | n/a | 41.5 | n/a | n/a | n/a | 70.2 | 73 | 150 | 6.27 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/26/2009 | 6.6 | -180 | 0.4 | < 0.01 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 30.5 | 40.2 | 200 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/10/2009 | 6.4 | 50.0 | 0.0 | 0.053 | n/a | n/a | 9.19 | n/a | n/a | n/a | 46.7 | 48.7 | 171 | <4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 6.3 | -61.0 | 0.0 | 0.044 | n/a | n/a | 8.3 | n/a | n/a | n/a | 63.8 | 131 | 249 | 0.919 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2010 | 6.5 | 17.0 | 9.3 | 0.071 | n/a | n/a | 10.7 | n/a | n/a | n/a | n/a | 166 | 133 | 0.444 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 5.4 | 78.0 | 1.6 | 0.038 | n/a | n/a | 8.12 | n/a | n/a | n/a | 78.7 | 101 | 140 | 1.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/13/2011 | 6.3 | 50.0 | 0.6 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 76.3 | 125 | 112 | 1.01 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/12/2012 | 6.5 | 29.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 89 | 166 | 251 | 0.868 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2012 | 6.2 | 11.0 | 0.3 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 91.3 | 156 | 140 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/30/2013 | 6.9 | 111 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 111 | 200 | 270 | 1.05 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2013 | 6.0 | 30.0 | 0.4 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 99.4(B) | 155 | 136 | 0.546(B) | <0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 6.3 | 156 | 1.0 | < 0.15 | 1.69 | n/a | 1.21 | n/a | <0.5 | n/a | 116 | 194 | 231 | 0.437 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 5.8 | 92.2 | 0.9 | < 0.03 | 2.27 | n/a | 8.8 | n/a | 2.5 | n/a | 107 | 146 | 135 | 0.213 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 6.2 | 126 | 0.5 | < 0.03 | 0.568 | n/a | 0.642 | n/a | < 0.5 | n/a | 112 | 167 | 242 | 0.563 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 11/13/2015 | 5.4 | 94 | 2.4 | 0.117 | 1.17 | n/a | 4.30 | n/a | 1.5 | n/a | 116 | 144 | 162 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/6/2016 10/26/2016 | 6.2 | -40 53 | 2.0 1.7 | <0.03 0.071 | 2.15 | 1.44 2.89 | 0.72 | 0.0503 10.40 | <0.5 3 | n/a | 124 106 | 166 138 | 178 182 | <1 1.12 | <0.2 <0.2 | <0.2 <0.2 | 0.209 <0.2 | n/a | n/a | n/a |
| | 4/25/2016 | 6.0 6.0 | 53 169 | 1.7 | < 0.071 | n/a 1.73 | | n/a 0.791 | | <0.5 | n/a | 112 | 138 144 | 182 144 | 1.12 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 5.8 | 2 | 1.3 | <0.05 | 1.73 | n/a | 3.480 | n/a | <0.5 2.5 | n/a 1.0 | 107 | 127 | 123 | <1.24 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | | 6.2 | | 2.2 | | | n/a | | n/a 0.129 | <0.5 | | 107 | | 123 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| <u> </u> | 4/24/2018 | 0.2 | 106 | 2.2 | < 0.05 | n/a | n/a | n/a | 0.129 | <0.5 | n/a | 109 | 146 | 154 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | Oxygen Reduction Potential (SA) (ORP) | (mg/D) (T) Dissolved Oxygen (DO) | (mg/L) (mg/L) | (T) Total Manganese | (m) Dissolved Manganese | (mg/L) | (mg/L) | or Green Betermined Ferrous (Tron (Fe2+) | (T) Ferric Iron (Fe3+) | Sulfate (mg/L) | Chloride | (Trotal Alkalinity [as CaCO3] | (T) Total Organic Carbon | oπ) (Tag 2-Chiorophenol | (Ta. 2,6-Dichlorophenol | (Tage 2,4 Dichlorophenol | Methane (mg/L) | Ethane (mg/L) | Ethene (mg/L) |
|------------|-------------------------|------------|---|-------------------------------------|----------------|---------------------|-------------------------|--------------|------------|--|------------------------|-------------------|------------|-------------------------------|--------------------------|----------------------------|-------------------------|--------------------------|----------------|---------------|---------------|
| MW-9D | | | | | | | | | | | n/a | | | | | | | | | | |
| , 22 | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/27/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/23/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/10/2006 | 6.1 | 39.3 | 1.1 | < 0.05 | n/a | n/a | 2.1 | n/a | n/a | n/a | 57 | 120 | 140 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/21/2006 | 6.2 | 350 | 0.4 | < 0.05 | n/a | n/a | 3.2 | n/a | n/a | n/a | 42 | 120 | 160 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/19/2007 | 6.4 | 35.1 | 0.5 | < 0.05 | n/a | n/a | 2.5 | n/a | n/a | n/a | 20 | 110 | 170 | <1 | n/a | n/a | n/a | 0.17 | < 0.02 | < 0.02 |
| | 10/14/2008 | 6.4 | -99.3 | 0.1 | 0.038 | n/a | n/a | 2.26 | n/a | n/a | n/a | 1.07 | 93.8 | 181 | 0.214 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/22/2009 | 6.5 | -153 | 1.5 | 0.01 | n/a | n/a | 3.26 | n/a | n/a | n/a | 0.43 | 103 | 185 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/10/2009 | 6.8 | -48.0 | 4.8 | < 0.01 | n/a | n/a | 4.65 | n/a | n/a | n/a | 0.19 | 108 | 186 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.3 | -23.0 | 0.0 | < 0.01 | n/a | n/a | 3.08 | n/a | n/a | n/a | 0.31 | 104 | 189 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/4/2010 | 6.7 | -37.0 | 0.0 | < 0.01 | n/a | n/a | 2.79 | n/a | n/a | n/a | < 0.2 | 105 | 184 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 5.7 | -21.0 | 0.6 | < 0.03 | n/a | n/a | 1.54 | n/a | n/a | n/a | 0.44 | 102 | 201 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2011 | 6.7 | -27.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.3 | 108 | 186 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/12/2012 | 6.7 | -22.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.26 | 106 | 196 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2012 | 6.7 | -31.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.22 | 106 | 188 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/30/2013 | 6.9 | -94.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | <0.2 | 103 | 256 | 2.13 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.5 | -39.0 | 0.2 | <0.03 | n/a | n/a | n/a | n/a | n/a | n/a | <0.2 | 110 | 183 | <0.2 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.4 | 90.4 | 0.6 | < 0.03 | 0.447 | n/a | 4.0 | n/a | 3.0 | 1.0 | <0.2 | 112 | 182 | <0.2 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/7/2014 4/15/2015 | 6.5 | -29.1 -23.6 | 0.4 | <0.03 | 0.45 0.782 | n/a | 3.0 | n/a | 2.0 2.0 | 1.0 | 0.22 0.55 | 108 107 | 186 | <0.2 0.532 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/15/2015 11/11/2015 | 6.5 6.5 | -23.6 -20.2 | 0.5 | <0.03 | 0.782 | n/a | 6.04 2.82 | n/a | 3.0 | 4.0 -0.2 | <0.55 | 107 | 161 179 | | <0.2 <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 6.5 | -20.2 -105.4 | 0.5 | <0.03 0.031 | 0.423 | n/a n/a | 0.97 | n/a | NR | | <0.5 0.56 | 111 | 179 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/26/2016 | 6.6 | -105.4 | 0.5 | 0.031 | 0.346 | n/a n/a | 3.420 | n/a n/a | 3.5 | n/a -0.1 | < 0.5 | 112 | 181 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a n/a | n/a n/a | n/a n/a |
| | 4/25/2017 | 6.7 | -22.0 | 0.8 | < 0.05 | 0.412 | n/a | 2.570 | n/a | 1.5 | 1.1 | <0.5 | 115 | 186 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.6 | -5.4 | 0.8 | < 0.05 | 0.412 | n/a | 3.020 | n/a | 2.5 | 0.5 | <0.5 | 110 | 183 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/24/2017 | 6.6 | -3.4 -14.5 | 1.1 | < 0.05 | n/a | n/a | 2.480 | n/a | 1.5 | 1.0 | 2.4 | 139 | 183 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | нd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|----------|-------------------------|------------|--------------------------------------|-----------------------|----------------------|-----------------|---------------------|----------------|----------------|--------------------------------------|--------------------|------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (IIIVS) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (μg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-10S | | | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/27/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/25/2000 1/23/2001 | n/a | n/a | n/a n/a | n/a | n/a n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a n/a | <10 <10 | n/a | n/a | n/a n/a | n/a | n/a n/a | n/a |
| | 7/31/2001 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <10 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/10/2006 | 6.2 | 127 | 1.0 | < 0.05 | n/a | n/a | 0.5 | n/a | n/a | n/a | 21 | 87 | 130 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/21/2006 | 6.4 | 354 | 1.3 | < 0.05 | n/a | n/a | 0.52 | n/a | n/a | n/a | 22 | 85 | 120 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/19/2007 | 6.4 | 163 | 0.7 | < 0.05 | n/a | n/a | 0.37 | n/a | n/a | n/a | 21 | 88 | 120 | <1 | n/a | n/a | n/a | < 0.01 | < 0.02 | < 0.02 |
| | 10/6/2008 | 6.1 | 101 | 0.2 | < 0.01 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 40.6 | 120 | 115 | 3.24 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/21/2009 | 6.3 | -17.5 | 0.8 | 0.017 | n/a | n/a | 0.0229 | n/a | n/a | n/a | 68.9 | 177 | 111 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/9/2009 | 6.5 | 85.0 | 0.0 | < 0.01 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 79.4 | 177 | 112 | 0.211 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 6.1 | 157 | 0.0 | < 0.01 | n/a | n/a | 0.066 | n/a | n/a | n/a | 112 | 227 | 389 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/6/2010 | 6.6 | 104 | 0.1 | < 0.01 | n/a | n/a | 0.045 | n/a | n/a | n/a | 114 | 206 | 117 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 6.2 | 143 | 0.9 | < 0.03 | n/a | n/a | 0.485 | n/a | n/a | n/a | 0.21 | 46.7 | 249 | 1.23 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2011 | 6.4 | 124 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 144 | 224 | 133 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/11/2012 | 6.3 | 240 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 185 | 235 | 127 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2012 | 6.3 | 124 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 204 | 234 | 123 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/5/2013 | 6.5 | 199 | 0.9 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 229 | 228 | 126 | 0.369 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.0 | 189 | 0.4 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 230 | 232 | 133 | < 0.2 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.1 | 154 | 1.3 | < 0.03 | 0.018 | n/a | 0.026 | n/a | <0.5 | n/a | 2.31 | 31.6 | 252 | 1.72 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/9/2014 | 6.2 | 146 | 0.6 | < 0.03 | 0.046 | n/a | < 0.02 | n/a | <0.5 | n/a | 235 | 204 | 146 | 0.456 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/15/2015 11/12/2015 | 6.2 | 185 | 0.5 | < 0.03 | 0.108 | n/a | 0.105 0.023 | n/a | <0.5 | n/a | 261 228 | 205 | 148 | < 0.2 | <0.2 | <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 6.3 6.2 | 108 -32 | 0.8 1.3 | <0.03 <0.03 | 0.360 0.028 | n/a | 0.023 | n/a | n/a <0.5 | n/a | 228 297 | 178 209 | 162 160 | <1 <1 | <0.2 <0.2 | <0.2 <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 6.2 | -32 76 | 1.3 | < 0.03 | 0.028 | n/a n/a | 0.0436 | n/a n/a | <0.5 0.5 | n/a n/a | 324 | 209 | 128 | <1 <1 | <0.2 | <0.2 | <0.2 0.26 | n/a n/a | n/a n/a | n/a n/a |
| | 4/25/2017 | 6.0 | 165 | 1.1 | < 0.05 | <0.1 | n/a n/a | < 0.5 | n/a n/a | <0.5 | n/a n/a | 324 | 208 | 140 | <1 | <0.2 | <0.2 | < 0.2 | n/a n/a | n/a n/a | n/a n/a |
| | 10/25/2017 | 6.0 | -7 | 0.4 | < 0.05 | <0.1 | n/a | <0.5 | n/a | <0.5 | n/a | 332 | 206 | 136 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 6.2 | 92 | 1.4 | < 0.05 | <0.1 n/a | n/a n/a | 0.0713 | n/a n/a | <0.5 <0.5 | n/a n/a | 352 361 | 200 | 160 | <1 | <0.2 | <0.2 | <0.2 | n/a n/a | n/a n/a | n/a n/a |
| <u> </u> | 4/24/2018 | 0.2 | 94 | 1.4 | <0.03 | II/a | II/a | 0.0713 | II/a | <0.5 | II/ ä | 301 | 443 | 100 | <1 | <0.2 | <∪.∠ | <0.2 | II/a | II/a | II/ ä |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | (S. Oxygen Reduction Potential) | (bg) Dissolved Oxygen (DO) | (bd) Nitrate-Nitrite as N | (T) Total Manganese | (m) Dissolved Manganese | Total Iron | (mg/L) | G Field Determined Ferrous Tron (Fe2+) | (Tarric Iron (Fe3+) | Sulfate (mg/L) | Chloride | (Trotal Alkalinity [as CaCO3] | (Trotal Organic Carbon | (T/8th) 2-Chlorophenol | (T ^(St) 2,6-Dichlorophenol | π 7.7 2,4-Dichlorophenol | Methane (mg/L) | Ethane (IJ/gm) | (Thene |
|------------|------------------------|------------|---------------------------------|----------------------------|---------------------------|---------------------|-------------------------|--------------|------------|---|---------------------|-------------------|------------|-------------------------------|------------------------|------------------------|---------------------------------------|--------------------------|----------------|----------------|--------------|
| MW-10D | | | | | | | | | | | | | | | | | | | | | |
| WW 10D | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/27/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/22/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/23/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2006 | 6.9 | -72.5 | 4.2 | < 0.05 | n/a | n/a | 1.1 | n/a | n/a | n/a | < 0.2 | 95 | 200 | <1 | n/a | n/a | n/a | 2.1 | < 0.02 | < 0.01 |
| | 12/21/2006 | 7.1 | 148 | 0.3 | < 0.05 | n/a | n/a | 1.8 | n/a | n/a | n/a | 0.35 | 74 | 200 | <1 | n/a | n/a | n/a | 0.28 | < 0.02 | < 0.01 |
| | 3/19/2007 10/6/2008 | 7.3 7.1 | -79.0 103 | 0.2 0.1 | <0.05 <0.01 | n/a n/a | n/a n/a | 1.1 0.843 | n/a n/a | n/a n/a | n/a n/a | <0.2 <0.04 | 54 41.2 | 220 207 | <1 7.46 | n/a n/a | n/a n/a | n/a n/a | 5.3 n/a | <0.02 n/a | <0.02 n/a |
| | 5/21/2009 | 7.1 | -107 | 0.1 | < 0.01 | n/a | n/a | 0.762 | n/a | n/a | n/a | < 0.04 | 46.7 | 223 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/9/2009 | 7.4 | -166 | 0.0 | < 0.01 | n/a | n/a | 3.54 | n/a | n/a | n/a | 0.13 | 44.2 | 210 | 0.241 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 1.8 | 209 | 0.8 | < 0.01 | n/a | n/a | 0.828 | n/a | n/a | n/a | < 0.01 | 45.7 | 55 | 0.918 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/6/2010 | 7.7 | -121 | 0.0 | < 0.01 | n/a | n/a | 0.624 | n/a | n/a | n/a | <0.01 | 46.3 | 228 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 6.3 | -100 | 0.7 | < 0.03 | n/a | n/a | 0.162 | n/a | n/a | n/a | 129 | 223 | 124 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2011 | 7.5 | -104 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 47.5 | 231 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/11/2012 | 7.6 | -126 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 47.1 | 230 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2012 | 7.5 | -113 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 47.9 | 231 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/5/2013 | 7.8 | -102 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 47.7 | 224 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 7.2 | -94.0 | 0.3 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.23 | 49.8 | 231 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 7.2 | -75.9 | 0.5 | < 0.03 | 0.080 | n/a | 0.533 | n/a | 0.5 | 0.033 | 231 | 209 | 134 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/9/2014 | 7.5 | -85.0 | 0.6 | 0.037 | 0.052 | n/a | 0.57 | n/a | < 0.5 | n/a | 0.49 | 51.1 | 226 | 0.428 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 7.1 | -61.7 | 0.2 | < 0.03 | 0.049 | n/a | 0.692 | n/a | 1.0 | n/a | 0.30 | 51.2 | 218 | 0.442 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/12/2015 | 7.2 | -2.2 | 0.7 | < 0.03 | 0.376 | n/a | 0.361 | n/a | 0.5 | n/a | 5.45 | 37.6 | 196 | 1.94 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 7.1 | -51.0 | 0.4 | < 0.03 | 0.052 | n/a | 0.505 | n/a | < 0.5 | n/a | < 0.5 | 55.1 | 219 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 7.1 | -92 | 1.0 | 0.044 | 0.0080 | n/a | 0.6 | n/a | 1.0 | n/a | 2.09 | 55.1 | 223 | <1 | < 0.2 | < 0.2 | 0.253 | n/a | n/a | n/a |
| | 4/25/2017 | 7.3 | -105 | 0.6 | 0.532 | < 0.1 | n/a | 0.625 | n/a | < 0.5 | n/a | < 0.5 | 60.9 | 231 | <1 | < 0.2 | < 0.2 | 0.257 | n/a | n/a | n/a |
| | 10/25/2017 | 7.3 | -57 | 0.7 | < 0.05 | < 0.1 | n/a | 0.6 | n/a | 1.0 | n/a | 0.93 | 57.2 | 218 | <1 | < 0.2 | < 0.2 | 0.206 | n/a | n/a | n/a |
| | 4/24/2018 | 7.3 | -104 | 0.9 | < 0.05 | n/a | n/a | 1.2 | n/a | 1.0 | 0.2 | 2.57 | 51.9 | 217 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | m Oxygen Reduction Potential S (ORP) | (mg/L) (T) | (M) Nitrate-Nitrite as N | om (T/T) Total Manganese | om Dissolved Manganese | (mg/L) | (mg/L) Dissolved Iron | base Field Determined Ferrous Tron (Fe2+) | (Mg/M) (Fe3+) | Sulfate (mg/L) | (T/bu) | bu) (Total Alkalinity [as CaCO3] | (Trotal Organic Carbon | (Transport | ng 2,6-Dichlorophenol | ள் ர 7 2,4-Dichlorophenol | (mg/L) | (Ll/gm) | (A/Sw) |
|------------|------------------------|------------|--------------------------------------|---------------|--------------------------|--------------------------|------------------------|------------|-----------------------|---|---------------|----------------|------------|----------------------------------|------------------------|---|-----------------------|---------------------------------|------------|------------|------------|
| MW-12S | | | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/27/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/24/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/3/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2003 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 8/27/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2005 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <1 <1 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 2/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2006 | 5.8 | 155 | 0.7 | 0.22 | n/a | n/a | 0.32 | n/a | n/a | n/a | 1.6 | 9.2 | 32 | <1 | n/a | n/a | n/a | <0.1 | < 0.02 | < 0.01 |
| | 12/21/2006 | 6.1 | 32.6 | 0.2 | 0.22 | n/a | n/a | 3 | n/a | n/a | n/a | 0.79 | 7.5 | 81 | <1 | n/a | n/a | n/a | <0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 6.3 | 65.5 | 0.3 | < 0.05 | n/a | n/a | 4.1 | n/a | n/a | n/a | 0.91 | 7.1 | 76 | <1 | n/a | n/a | n/a | 0.56 | < 0.02 | < 0.02 |
| | 10/7/2010 | 6.2 | 60.0 | 0.0 | < 0.01 | n/a | n/a | 1.9 | n/a | n/a | n/a | 1.6 | 8.19 | 40.5 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2011 | 6.1 | 154 | 0.0 | 0.065 | n/a | n/a | n/a | n/a | n/a | n/a | 1.62 | 8.71 | 52 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2012 | 6.1 | 139 | 0.0 | 0.199 | n/a | n/a | n/a | n/a | n/a | n/a | 1.62 | 8.96 | 39 | 0.231 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/7/2013 | 6.3 | 201 | 0.1 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | 5.59 | 52.3 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 5.9 | 120 | 0.2 | 0.168 | n/a | n/a | n/a | n/a | n/a | n/a | 1.64 | 9.5 | <6 | 0.519 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | Flooded b | elow grade | surface con | pletion, the | refore well | was not sam | pled. | | | | | | | | | | | | | |
| | 10/7/2014 | 5.6 | 223 | 0.3 | 0.139 | 0.014 | n/a | 0.840 | | < 0.5 | n/a | 1.39 | 9.04 | 42.5 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | Flooded b | elow grade | surface con | npletion, the | refore well | was not sam | pled. | | | | | | | | | | | | | |
| | 11/10/2015 | 5.4 | 108 | 0.8 | 0.151 | 0.028 | n/a | 0.734 | n/a | < 0.5 | n/a | 1.58 | 8.69 | 36.6 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 6.0 | -95.5 | 0.2 | < 0.03 | 0.136 | n/a | 1.6 | n/a | 1 | 0.6 | 0.78 | 5.84 | 83.5 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/26/2016 | 6.3 | 116 | 0.4 | < 0.03 | 0.053 | n/a | 1.81 | n/a | NR | n/a | 1.58 | 8.58 | 195 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/27/2017 | 6.6 | -56 | 0.1 | < 0.25 | 0.238 | n/a | 2.03 | n/a | 1.5 | 0.53 | 0.5 | 7.29 | 54.7 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.1 | -7 | 0.4 | 0.066 | < 0.1 | n/a | < 0.5 | n/a | < 0.5 | n/a | 2.05 | 9.35 | 50.1 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 5.6 | 131 | 0.5 | 0.0873 | n/a | n/a | 0.68 | n/a | < 0.5 | n/a | 1.08 | 8.7 | 41.8 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | S Oxygen Reduction Potential (ORP) | (Ba) Dissolved Oxygen (DO) | (mg/L) Nitrate-Nitrite as N | (T) Total Manganese | (MZ/Z) Dissolved Manganese | (mg/L) | (mg/L) | Eich Determined Ferrous | (Mag) (Martic Iron (Fe3+) | Sulfate (mg/L) | Chloride (mg/L) | (T) Total Alkalinity [as CaCO3] | (Man) Total Organic Carbon | απ 2-Chlorophenol | π 7/3 2,6-Dichlorophenol | er 2,4-Dichlorophenol | Methane (mg/L) | Ethane (J/gm) | Ethene (Mg/L) |
|------------|------------------------|------------|------------------------------------|----------------------------|-----------------------------|---------------------|----------------------------|--------------|------------|-------------------------|---------------------------|----------------|-----------------|---------------------------------|----------------------------|-------------------|--------------------------|-----------------------|----------------|---------------|---------------|
| MW-16S | | | | | | | | | | | | | | | | | | | | | |
| | 7/14/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/19/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/24/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/30/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2006 | 6.8 | -20.3 | 0.3 | < 0.05 | n/a | n/a | 0.79 | n/a | n/a | n/a | 410 | 210 | 76 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.9 | 50.0 | 0.4 | < 0.05 | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | 120 | 110 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/22/2007 | 6.6 | 8.5 | 0.3 | < 0.05 | n/a | n/a | 1.2 | n/a | n/a | n/a | 340 | 100 | 100 | <1 | n/a | n/a | n/a | 0.015 | <0.02 | < 0.02 |
| | 9/30/2008 5/19/2009 | 6.4 6.6 | -22.2 -68.9 | 0.1 0.9 | <0.0001 0.018 | n/a n/a | n/a n/a | 2.41 1.59 | n/a n/a | n/a n/a | n/a n/a | 313 344 | 103 80.9 | 111 105 | <0.0002 0.356 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 11/2/2009 | 6.3 | 21.0 | 0.9 | < 0.013 | n/a | n/a | 2.53 | n/a | n/a | n/a | 277 | 94.1 | 105 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 6.5 | 34.0 | 0.0 | 0.012 | n/a | n/a | 2.91 | n/a | n/a | n/a | 365 | 89.6 | 321 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/6/2010 | 6.8 | 2.0 | 0.0 | < 0.012 | n/a | n/a | 1.97 | n/a | n/a | n/a | 296 | 142 | 103 | 0.481 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/6/2011 | 5.9 | 17.0 | 0.8 | < 0.01 | n/a | n/a | 1.02 | n/a | n/a | n/a | 222 | 107 | 115 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2011 | 6.8 | -14.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 242 | 165 | 136 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/16/2012 | 6.6 | 35.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 281 | 80.4 | 101 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/21/2012 | 6.9 | 2.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 281 | 129 | 123 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/1/2013 | 7.2 | -94.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 177 | 108 | 86.4 | 20.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.7 | 53.0 | 0.3 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 278 | 130 | 95.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 6.6 | 138 | 0.7 | 0.036 | 2.54 | n/a | 0.644 | n/a | < 0.5 | n/a | 248 | 77.3 | 106 | 0.246 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 6.7 | 36.0 | 0.3 | < 0.03 | 4.57 | n/a | 1.2 | n/a | 0.5 | 0.7 | 241 | 91 | 120 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 6.7 | 438 | 0.9 | 0.038 | 0.972 | n/a | 0.188 | n/a | < 0.5 | n/a | 230 | 88.8 | 120 | 0.215 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 6.8 | 98 | 0.7 | < 0.03 | 5.59 | n/a | 0.715 | n/a | < 0.5 | n/a | 244 | 109 | 132 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/4/2016 | 6.6 | 527 | 2.1 | 0.038 | 1.47 | n/a | 0.573 | n/a | < 0.5 | n/a | 244 | 72.3 | 123 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/26/2016 | 6.3 | 26 | 0.3 | < 0.03 | 4.55 | n/a | 1.44 | n/a | 1 | 0.44 | 178 | 108 | 140 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/25/2017 | 6.7 | 85 | 0.5 | < 0.05 | 2.26 | n/a | 1.14 | n/a | NR | n/a | 207 | 77.6 | 127 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.7 | 0 | 0.6 | < 0.05 | n/a | 3.9 | n/a | 0.721 | 1 | n/a | 200 | 110 | 144 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 6.6 | -129 | 0.8 | 0.0647 | n/a | n/a | 0.399 | n/a | < 0.5 | n/a | 163 | 98.3 | 139 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | hd. | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|--------|------------|------|-------------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|---------|----------|-----------------------------|----------------------|----------------|--------------------|--------------------|---------|--------|--------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (µg/L) | (µg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-16D | | | | | | | | | | | | | | | | | | | | | |
| | 10/16/2006 | 6.6 | -57.9 | 6.2 | < 0.05 | n/a | n/a | 6.1 | n/a | n/a | n/a | 240 | 210 | 130 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/20/2006 | 6.8 | -109 | 0.3 | < 0.05 | n/a | n/a | 10 | n/a | n/a | n/a | 170 | 170 | 120 | 1.3 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/21/2007 | 6.7 | -82.7 | 0.3 | < 0.05 | n/a | n/a | 8.8 | n/a | n/a | n/a | 240 | 200 | 110 | <1 | n/a | n/a | n/a | 0.14 | < 0.02 | < 0.02 |
| | 9/30/2008 | 6.6 | -156 | 0.1 | < 0.01 | n/a | n/a | 4.27 | n/a | n/a | n/a | 196 | 111 | 101 | 2.26 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/19/2009 | 6.8 | -180 | 1.3 | 0.028 | n/a | n/a | 3.98 | n/a | n/a | n/a | 213 | 105 | 100 | 1.74 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/3/2009 | 6.6 | -93.0 | 0.0 | < 0.01 | n/a | n/a | 3.7 | n/a | n/a | n/a | 208 | 104 | 104 | 2.21 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 6.5 | -26.0 | 0.4 | 0.012 | n/a | n/a | 8.34 | n/a | n/a | n/a | 210 | 99.7 | 316 | 3.42 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/6/2010 | 7.7 | -166 | 0.0 | < 0.01 | n/a | n/a | 2.52 | n/a | n/a | n/a | 164 | 143 | 73 | 14.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/6/2011 | 6.6 | -80.0 | 1.1 | < 0.03 | n/a | n/a | 3.78 | n/a | n/a | n/a | 205 | 97.5 | 98.7 | 3.49 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/13/2011 | 6.8 | -122 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 184 | 105 | 97 | 12.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/16/2012 | 6.8 | -75.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 166 | 96.9 | 94.5 | 11.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/21/2012 | 7.0 | -77.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 165 | 90.7 | 96 | 11 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/1/2013 | 7.4 | -88.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 169 | 143 | 66.5 | 20.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 7.4 | -101 | 0.2 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 154 | 102 | 93.2 | 21.7(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 7.4 | -61.0 | 0.3 | < 0.03 | 0.489 | n/a | 3.04 | n/a | 0.5 | 2.54 | 148 | 105 | 78.6 | 28.1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 7.0 | -106 | 0.3 | < 0.03 | 0.48 | n/a | 2.16 | n/a | 1.5 | 0.66 | 138 | 79.8 | 94.8 | 16.4 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 7.3 | -81.0 | 0.6 | < 0.03 | 0.033 | n/a | 1.52 | n/a | 0.5 | 1.02 | 131 | 87.5 | 86.2 | 23.9 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 7.2 | -123 | 0.3 | <0.3 | 0.437 | n/a | 2.17 | n/a | 2.0 | 0.17 | 126 | 73.3 | 102 | 11.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/4/2016 | 6.8 | -78 | 1.1 | < 0.03 | 0.394 | n/a | 2.29 | n/a | 1.0 | 1.29 | 126 | 70.9 | 96.3 | 11 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 6.6 | -139 | 0.8 | < 0.03 | 0.508 | n/a | 2.51 | n/a | 2.0 | 0.51 | 119 | 60.6 | 113 | 2.5 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/25/2017 | 7.7 | -129 | 0.7 | < 0.05 | n/a | 0.380 | n/a | 2.02 | 0.5 | n/a | 109 | 69.7 | 110 | 7.7 | <0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 8.2 | -228 | 0.4 | < 0.05 | n/a | 0.364 | n/a | 1.89 | < 0.5 | n/a | 91.4 | 80.4 | 88.1 | 6.4 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 7.3 | -170 | 0.8 | < 0.05 | n/a | n/a | 2.42 | n/a | < 0.5 | n/a | 102 | 62.5 | 111 | 15.8 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Нd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|----------|------------------------|------------|--------------------------------------|-----------------------|----------------------|-----------------|---------------------|----------------|----------------|---|--------------------|--------------|--------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (mvs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (μg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-17S | | | | | | | | | | | | | | | | | | | | | |
| | 7/15/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/16/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/24/2001 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a | <1 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 8/27/2003 | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/30/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/29/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2006 | 5.7 | 178 | 0.5 | 0.13 | n/a | n/a | 0.052 | n/a | n/a | n/a | 2.6 | 18 | 34 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/18/2006 | 5.4 | 185 | 1.5 | < 0.05 | n/a | n/a | 0.039 | n/a | n/a | n/a | 3 | 18 | 29 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 5.9 | 180 | 0.4 | 0.061 | n/a | n/a | 0.04 | n/a | n/a | n/a | 2.7 | 17 | 35 | <1 | n/a | n/a | n/a | 0.076 | < 0.02 | < 0.02 |
| | 9/25/2008 | 5.6 | 76.9 | 0.2 | 0.218 | n/a | n/a | 0.0344 | n/a | n/a | n/a | 3.04 | 16.2 | 35.9 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/20/2009 | 6.0 | 66.5 | 0.4 | 0.116 | n/a | n/a | 0.181 | n/a | n/a | n/a | 2.9 | 17.7 | 37.2 | 0.262 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/4/2009 | 5.8 | 124 | 0.0 | 0.214 | n/a | n/a | 0.0655 | n/a | n/a | n/a | 2.72 | 17 | 36.4 | 0.251 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/4/2010 | 5.8 | 174 | 0.0 | 0.179 | n/a | n/a | 0.183 | n/a | n/a | n/a | 2.84 | 16.3 | 8 | 0.529 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 6.0 | 153 | 0.0 | 0.203 | n/a | n/a | 0.104 | n/a | n/a | n/a | 2.66 | 16.8 | 35 | 0.21 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/11/2011 | 5.5 | 159 | 1.4 | 0.219 | n/a | n/a | 0.11 | n/a | n/a | n/a | 2.8 | 17.9 | 32.8 | 0.209 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2011 | 6.1 | 119 | 0.0 | 0.161 | n/a | n/a | n/a | n/a | n/a | n/a | 2.74 | 18.8 | 43.6 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/12/2012 | 5.9 | 216 | 0.0 | 0.235 | n/a | n/a | n/a | n/a | n/a | n/a | 2.77 | 16.7 | 34.5 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/22/2012 | 6.0 | 145 | 0.0 | 0.287 | n/a | n/a | n/a | n/a | n/a | n/a | 2.72 | 18.3 | 34.1 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/5/2013 | 6.5 | 77.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 76 | 142 | 126 | 1.94 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 5.8 | 191 | 0.3 | 0.269 | n/a | n/a | n/a | n/a | n/a | n/a | 2.66 | 17.6 | 38.2 | <0.2(B) | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 5.8 | 187 | 0.5 | 0.325 | 0.056 | n/a | 0.254 | n/a | <0.5 | n/a | 2.79 | 17 | 30.2 | 0.207 | <0.2 | < 0.2 | <0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 5.7 | 165 | 0.3 | 0.345 | 0.053 | n/a | 0.062 | n/a | < 0.5 | n/a | 2.66 | 15.9 | 32.7 | <0.2 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 5.9 | 148 | 0.9 | 0.331 | 0.002 | n/a | 0.063 | n/a | < 0.5 | n/a | 2.8 | 15.9 | 35.7 | < 0.2 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 5.3 | 96.8 | 0.5 | 0.351 | 0.567 | n/a | 0.553 | n/a | < 0.5 | n/a | 2.67 | 16.8 | 31.5 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/5/2016 10/25/2016 | 5.9 | 225 87 | 2.8 1.0 | 0.274 0.340 | 0.042 0.0710 | n/a | 0.292 <0.2 | n/a | <0.5 <0.5 | n/a <0.2 | 2.68 3.02 | 16.9 17.5 | 30.1 33.0 | <1 <1 | <0.2 <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 4/27/2016 | 5.6 5.9 | 87 148 | 0.5 | 0.340 | | n/a | <0.2 0.590 | n/a | <0.5 <0.5 | <0.2 | 2.79 | 17.5 | 41.2 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2017 | 5.9 | -1 | 0.5 | 0.218 | n/a <0.1 | n/a | <0.590 <0.5 | n/a | <0.5 <0.5 | n/a | 2.79 | 18.2 17.7 | 35.0 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | | 5.8 5.7 | | | 0.273 | | n/a | <0.5 0.907 | n/a | | n/a | | | 35.0 | <1 <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| <u> </u> | 4/25/2018 | ٥.1 | 161 | 0.6 | 0.295 | n/a | n/a | 0.907 | n/a | <0.5 | n/a | 3.17 | 18.4 | 31./ | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | B Oxygen Reduction Potential | m JZ Dissolved Oxygen (DO) | (Mg/M) (Nitrate-Nitrite as N | (J/T) Total Manganese | E Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous | Man Ferric Iron (Fe3+) | Sulfate | Chloride (mg/L) | Total Alkalinity [as CaCO3] | Ty (Ty Total Organic Carbon | 7/2 2-Chlorophenol | 元 元 7. 2,6-Dichlorophenol | ਜ ਨੂੰ 2,4-Dichlorophenol | Methane (mg/L) | Ethane (MZ/gm) | Ethene (mg/L) |
|-------------|------------------|------------|------------------------------|----------------------------|---------------------------------|-----------------------|-----------------------|--------|--------|--------------------------|------------------------|---------|-----------------|-----------------------------|--------------------------------|--------------------|---------------------------------|-----------------------------|----------------|----------------|---------------|
| MW-18S | Date | () | | . 0 / | , , | , 0 , | , 0 , | . 0 / | , 0 , | . 0 / | . 0 / | . 0 , | . 0 / | . 0 / | . 0 / | 40 / | 40 / | 40 / | , 0 , | · U / | . 0 / |
| IVI W - 105 | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/24/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/30/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/29/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2006 | 6.8 | 85.2 | 2.9 | 0.38 | n/a | n/a | 11 | n/a | n/a | n/a | 30 | 10 | 110 | 3.8 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/19/2006 | 5.9 | -69.4 | 0.9 | 0.44 | n/a | n/a | 0.33 | n/a | n/a | n/a | n/a | 11 | <1 | 1.9 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 5.9 | 178 | 0.3 | 0.6 | n/a | n/a | 2.3 | n/a | n/a | n/a | 1.8 | 18 | 27 | <1 | n/a | n/a | n/a | < 0.01 | < 0.02 | < 0.02 |
| | 5/21/2009 | 6.0 | 15.8 | 0.5 | 0.673 | n/a | n/a | 0.0535 | n/a | n/a | n/a | 4.43 | 23.9 | 33.4 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/4/2009 | 6.0 | 204 | 0.0 | 0.195 | n/a | n/a | 0.117 | n/a | n/a | n/a | 32.8 | 80.3 | 73 | 0.762 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 5.6 | 203 | 0.0 | 0.632 | n/a | n/a | 0.0951 | n/a | n/a | n/a | 4.02 | 20.3 | 29 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/7/2010 | 6.3 | 229 | 0.1 | < 0.01 | n/a | n/a | 0.252 | n/a | n/a | n/a | 45.6 | 126 | 86.7 | 0.222 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/6/2011 | 5.7 | 145 | 0.7 | 0.816 | n/a | n/a | 0.0687 | n/a | n/a | n/a | 6.44 | 22.5 | 56 | 0.36 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/13/2011 | 6.1 | 114 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 43.8 | 119 | 93 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/12/2012 | 6.3 | 204 | 0.0 | 0.309 | n/a | n/a | n/a | n/a | n/a | n/a | 20.1 | 46.5 | 73.8 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2012 | 6.6 | 96.0 | 0.0 | 0.24 | n/a | n/a | n/a | n/a | n/a | n/a | 22.5 | 35.6 | 132 | 0.946 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/6/2013 | 6.6 | 116 | 6.0 | 0.303 | n/a | n/a | n/a | n/a | n/a | n/a | 21.6 | 53 | 82.2 | 1.11 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.2 | 78.0 | 0.3 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 40.5 | 92.8 | <6 | 0.305 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.0 | 191 | 0.7 | 0.127 | 0.128 | n/a | 0.104 | n/a | <0.5 | n/a | 24.7 | 55.3 | 84.4 | 0.243 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.0 | -16.4 | 0.3 | <0.3 | 0.376 | n/a | 0.617 | n/a | 0.5 | 0.117 | 37.8 | 73.4 | 100 | <0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 5.9 | 191 | 0.2 | 0.317 | 0.859 | n/a | 0.142 | n/a | <0.5 | n/a | 10.8 | 30.2 | 73.6 | 0.205 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/12/2015 | 6.1 | 78.9 | 0.6 | < 0.3 | 0.134 | n/a | 0.478 | n/a | <0.5 | n/a | 31.4 | 67.2 | 107 | <1 | < 0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 6.11 | -102.3 | 0.5 | 0.212 | 0.115 | n/a | 0.302 | n/a | <0.5 | n/a | 14.8 | 38.7 | 70.3 | <1 | < 0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 6.5 | -87 | 0.3 | < 0.15 | 0.283 | n/a | 0.65 | n/a | 1 | n/a | 39.8 | 109 | 154 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/26/2017 | 6.7 | -40 | 0.4 | < 0.05 | 0.210 | n/a | <0.5 | n/a | <0.5 | n/a | 20.8 | 56.2 | 92.8 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2017 | 6.0 | -25 | 0.6 | < 0.25 | 0.213 | n/a | < 0.5 | n/a | <0.5 | n/a | 41.4 | 113 | 117 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/26/2018 | 6.1 | 113 | 0.6 | 0.0941 | n/a | n/a | 0.0356 | n/a | < 0.5 | n/a | 19 | 54 | 93.2 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | ii) Oxygen Reduction Potential is (ORP) | (mg/L) Dissolved Oxygen (DO) | (T) (Marte-Nitrite as N | m) Total Manganese | m dd Dissolved Manganese (7 | (mg/L) | (mg/L) | iii Field Determined Ferrous | (T) Ferric Iron (Fe3+) | Sulfate | Chloride Chloride | fig. Total Alkalinity [as CaCO3] | m Garlo Organic Carbon (7) | (r) 2-Chlorophenol | க் ஜீ 2,6-Dichlorophenol | re 2,4-Dichlorophenol | Methane (mg/L) | Ethane (L/gm) | Ethene (Mg/L) |
|------------|------------------------|------------|--|------------------------------|-------------------------|--------------------|-----------------------------------|------------|------------|------------------------------|------------------------|------------|-------------------|----------------------------------|----------------------------------|--------------------|-----------------------------|-----------------------|----------------|---------------|---------------|
| MW-18D | | | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 8/28/2002 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <10 <1 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/30/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/24/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/29/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2006 | 6.6 | -38.3 | 1.6 | < 0.05 | n/a | n/a | 1.6 | n/a | n/a | n/a | 0.82 | 15 | 130 | <1 | n/a | n/a | n/a | 0.23 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.5 | -67.3 | 1.5 | < 0.05 | n/a | n/a | 2.6 | n/a | n/a | n/a | n/a | 14 | 140 | <1 | n/a | n/a | n/a | 0.12 | < 0.02 | < 0.01 |
| | 3/20/2007 | 6.8 | -55.1 | 0.4 | < 0.05 | n/a | n/a | 2.6 | n/a | n/a | n/a | 1.4 | 16 | 140 | 1.2 | n/a | n/a | n/a | 0.042 | < 0.02 | < 0.02 |
| | 10/1/2008 | 6.6 | -77.6 | 0.1 | < 0.01 | n/a | n/a | 1.8 | n/a | n/a | n/a | 1.27 | 13.8 | 134 | 1.39 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/21/2009 | 6.7 | -131 | 0.2 | 0.025 | n/a | n/a | 1.6 | n/a | n/a | n/a | 1.44 | 17.4 | 137 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/4/2009 | 7.0 | -101 | 5.1 | < 0.01 | n/a | n/a | 2.3 | n/a | n/a | n/a | 0.19 | 16.8 | 142 | 0.271 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.6 | -115 | 5.0 | < 0.01 | n/a | n/a | 2.88 | n/a | n/a | n/a | 0.51 | 18.3 | 87 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/7/2010 | 7.1 | -103 | 0.0 | < 0.01 | n/a | n/a | 2.27 | n/a | n/a | n/a | 0.91 | 19 | 135 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/6/2011 | 6.8 | -92.0 | 1.4 | < 0.03 | n/a | n/a | 1.7 | n/a | n/a | n/a | 1.35 | 20.7 | 138 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/13/2011 | 6.7 | -76.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 1.55 | 22.2 | 146 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/16/2012 | 7.0 | -80.0 | 0.1 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | 22.6 | 143 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/21/2012 | 7.2 | -80.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 1.57 | 24.1 | 140 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/6/2013 | 7.3 | 78.0 | 5.6 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 3.09 | 22.2 | 149 | 0.646 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.8 | -72.0 | 0.2 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 2.37 | 25.9 | 36.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.7 | 178 | 1.4 | 0.044 | 0.048 | n/a | 0.52 | n/a | < 0.5 | n/a | 2.8 | 26.3 | 139 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.7 | -99.5 | 0.2 | < 0.3 | 0.192 | n/a | 2.64 | n/a | 1.5 | 1.14 | 0.53 | 27.9 | 139 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 6.6 | -6.9 | 0.2 | < 0.03 | 0.200 | n/a | 1.22 | n/a | 0.5 | 0.72 | 1.67 | 28.6 | 141 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/12/2015 | 6.7 | -34.5 | 0.6 | < 0.3 | 0.178 | n/a | 2.48 | n/a | 2.5 | -0.02 | 1.59 | 28.9 | 129 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 6.7 | -136.6 | 0.3 | < 0.03 | 0.179 | n/a | 1.49 | n/a | 1 | 0.49 | 1.02 | 31.8 | 117 | <1 | < 0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 6.4 | -106 | 0.5 | < 0.03 | 0.204 | n/a | 2.44 | n/a | 3.0 | n/a | < 0.5 | 32.4 | 138 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/26/2017 | 6.1 | 135.8 | 0.9 | < 0.25 | 0.22 | n/a | 1.97 | n/a | 2.0 | n/a | <2.5 | 31.8 | 139 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2017 | 6.6 | -37.2 | 0.3 | < 0.05 | 0.218 | n/a | 2.79 | n/a | 2.0 | 0.79 | 30.7 | < 0.5 | 142 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/26/2018 | 6.8 | 4.9 | 0.6 | < 0.05 | n/a | n/a | 0.731 | n/a | 0.5 | 0.23 | 1.86 | 33.1 | 142 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | нd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|--------|------------------------|------------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|---------------|----------------|---|--------------------|--------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (μg/L) | (µg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-19S | | | | | | | | | | | | | | | | | | | | | |
| | 7/15/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/20/2000 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/24/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <10 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/31/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/29/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2006 | 5.9 | 176 | 8.9 | 0.12 | n/a | n/a | 0.043 | n/a | n/a | n/a | 52 | 140 | 42 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.1 | 232 | 4.1 | < 0.05 | n/a | n/a | 0.099 | n/a | n/a | n/a | n/a | 98 | 52 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 5.6 | 196 | 0.6 | < 0.05 | n/a | n/a | 0.037 | n/a | n/a | n/a | 23 | 140 | 39 | <1 | n/a | n/a | n/a | 0.72 | < 0.02 | < 0.02 |
| | 9/26/2008 | 5.5 | 83.4 | 0.8 | < 0.01 | n/a | n/a | < 0.02 | n/a | n/a | n/a | 25 | 163 | 50.6 | 0.228 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/20/2009 | 5.6 | 33.0 | 1.3 | < 0.01 | n/a | n/a | 0.142 | n/a | n/a | n/a | 23.2 | 160 | 75 | 0.262 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/3/2009 | 6.0 | 101 | 0.0 | < 0.01 | n/a | n/a | 0.216 | n/a | n/a | n/a | 28.7 | 127 | 99.4 | 0.723 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 5.7 | 189 | 0.8 | < 0.01 | n/a | n/a | 4.12 | n/a | n/a | n/a | 31.4 | 158 | 223 | 0.679 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 5.8 | 163 | 0.0 | < 0.01 | n/a | n/a | 0.444 | n/a | n/a | n/a | 34.9 | 170 | 57.5 | < 0.02 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 5.2 | 149 | 0.4 | < 0.03 | n/a | n/a | 0.233 | n/a | n/a | n/a | 38.4 | 174 | 66.4 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2011 | 5.7 | 132 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 32.7 | 173 | 69.6 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/17/2012 | 5.9 | 153 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 32.2 | 154 | 73.7 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/22/2012 | 5.9 | 110 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 40.8 | 161 | 68.8 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/5/2013 | 6.0 | 134 | 3.4 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 41.1 | 45.5 | 76 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 4/21/2014 | 5.6 | 165 | 1.1 | <0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 37.4 | 154 | 77.7 | 0.232(B) | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/21/2014 10/7/2014 | 5.8 5.8 | 175 121 | 0.6 0.4 | <0.03 <0.03 | 0.261 0.293 | n/a | 0.52 0.296 | n/a n/a | <0.5 <0.5 | n/a | 36.2 37.2 | 141 141 | 78.3 80.8 | 0.268 <0.2 | <0.2 <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 5.8 | 137 | 1.0 | < 0.03 | 0.293 | n/a n/a | 0.296 | n/a n/a | <0.5 | n/a n/a | 34.4 | 141 | 84.5 | 0.235 | <0.2 | <0.2 | <0.2 | n/a n/a | n/a n/a | n/a n/a |
| | 11/11/2015 | 5.7 | 71.3 | 0.6 | < 0.03 | 0.244 | n/a n/a | 0.180 | n/a n/a | <0.5 0.5 | n/a n/a | 40.8 | 138 | 84.5 82.6 | 0.235 <1 | <0.2 | <0.2 | <0.2 | n/a n/a | n/a n/a | n/a n/a |
| | 4/5/2016 | 6.1 | 222 | 2.7 | < 0.03 | 0.206 | n/a | 0.200 | n/a | <0.5 | n/a | 38.6 | 139 | 77.2 | <1 | <0.2 | <0.2 | 0.272 | n/a | n/a | n/a |
| | 10/26/2016 | 5.7 | 121 | 0.8 | < 0.03 | 0.200 | n/a | 0.2200 | n/a | 0.5 | n/a | 41 | 143 | 76.7 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/26/2017 | 5.8 | 115 | 1.5 | < 0.05 | 0.267 | n/a | <0.5 | n/a | < 0.5 | n/a | 37 | 144 | 89.7 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2017 | 5.9 | 76 | 1.1 | < 0.05 | 0.29 | n/a | <0.5 | n/a | 0.5 | n/a | 39.4 | 140 | 8.5 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/25/2018 | 5.7 | -136 | 0.6 | < 0.05 | n/a | n/a | 0.1090 | | < 0.5 | n/a | 37.6 | 133 | 88.7 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Нd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|--------|-----------------------|------------|--------------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (mvs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-19D | | | | | | | | | | | | | | | | | | | | | |
| | 7/15/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/24/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | 1.1 <1 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 2/26/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/31/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 6.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/29/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2006 | 6.2 | -32.0 | 3.3 | < 0.05 | n/a | n/a | 8.4 | n/a | n/a | n/a | 38 | 130 | 98 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.4 | -33.8 | 0.3 | < 0.05 | n/a | n/a | 9 | n/a | n/a | n/a | n/a | 110 | 100 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 6.5 | -81.2 | 0.4 | < 0.05 | n/a | n/a | 8.9 | n/a | n/a | n/a | 75 | 120 | 110 | <1 | n/a | n/a | n/a | 0.12 | < 0.02 | < 0.02 |
| | 9/29/2008 | 6.4 | -134 | 0.1 | < 0.01 | n/a | n/a | 6.81 | n/a | n/a | n/a | 65 | 104 | 116 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/20/2009 | 6.5 | -147 | 0.3 | 0.032 | n/a | n/a | 7.68 | n/a | n/a | n/a | 73.7 | 118 | 102 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/3/2009 | 6.4 | -32.0 | 0.0 | < 0.01 | n/a | n/a | 6.88 | n/a | n/a | n/a | 71.4 | 115 | 106 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/4/2010 | 6.1 | -20.0 | 0.0 | < 0.01 | n/a | n/a | 6.8 | n/a | n/a | n/a | 61.6 | 121 | 209 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 6.7 | -45.0 | 0.0 | 0.039 | n/a | n/a | 6.49 | n/a | n/a | n/a | 87.8 | 117 | 97.5 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 6.6 | -53.0 | 0.6 | < 0.03 | n/a | n/a | 5.84 | n/a | n/a | n/a | 60.6 | 123 | 105 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2011 | 6.7 | -56.0 | 0.1 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 72 | 121 | 107 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/17/2012 | 6.6 | -35.0 | 0.2 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 65 | 118 | 114 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/22/2012 | 6.8 | -47.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 55.7 | 117 | 108 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/5/2013 | 6.8 | 97.0 | 2.6 | 0.076 | n/a | n/a | n/a | n/a | n/a | n/a | 49.8 | 108 | 110 | 0.325 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.3 | -37.0 | 0.5 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 61.9 | 87 | 94.7 | <0.2(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.5 | -33.7 | 0.3 | < 0.03 | 0.871 | n/a | 6.84 | n/a | 3.0 | 3.84 | 66.3 | 93.3 | 109 | 0.287 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 6.5 | -20.0 | 0.3 | < 0.03 | 0.854 | n/a | 6.1 | n/a | 2.0 | 4.1 | 71.6 | 82.6 | 109 | 0.854 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 6.6 | 38.1 | 1.0 | < 0.03 | 0.755 | n/a | 4.02 | n/a | 1.5 | 2.52 | 71.7 | 83.2 | 107 | 0.2 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 11/13/2015 | 6.3 | 41.4 | 0.5 | < 0.3 | 0.805 | n/a | 5.43 | n/a | 2.0 | 3.43 | 65.2 | 85.1 | 102 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 6.7 | 5.0 | 5.2 | < 0.03 | 0.74 | n/a | 4.89 | n/a | 2.0 | 2.89 | 73.7 | 86.2 | 53 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/26/2016 | 6.1 | -51 | 0.3 | 0.057 | 0.881 | n/a | 5.59 | n/a | 2.5 | 3.09 | 74 | 82 | 105 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/26/2017 | 6.5 | -18 | 0.4 | < 0.05 | 0.992 | n/a | 3.6 | n/a | 2.5 | 1.1 | 44.4 | 97.2 | 117 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2017 | 6.6 | -28 | 0.3 | < 0.05 | 0.858 | n/a | 5.43 | n/a | 2.0 | 3.43 | 68 | 75.4 | 110 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/25/2018 | 6.3 | -154 | 0.3 | 0.0662 | n/a | n/a | 2.64 | n/a | 1.5 | 1.14 | 51.8 | 89.1 | 104 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | D Oxygen Reduction Potential (ORP) | (mg) Dissolved Oxygen (DO) | sm) (T) Nitrate-Nitrite as N | (T/Z Total Manganese | m Dissolved Manganese | (mg/L) | m Sg Dissolved Iron | Eield Determined Ferrous Tron (Fe2+) | (T/Sm) (Fe3+) | Souffate (mg/L) | Chloride (mg/L) | (m) Total Alkalinity [as CaCO3] | (T/Sm) Total Organic Carbon | $ \stackrel{\pi}{\text{gg}} 2\text{-Chlorophenol} $ | (T/s/d) 2,6-Dichlorophenol | fa 2,4 Dichlorophenol | Methane (mg/L) | Ethane (A/gm) | Ethene (L/gm) |
|---------|-----------------------|------------|--|----------------------------|----------------------------------|----------------------|-----------------------|--------------|---------------------|---|---------------|--------------------|-----------------|---------------------------------|-----------------------------|---|----------------------------|-----------------------|----------------|---------------|---------------|
| MW-20S | 7/15/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/20/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/24/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/31/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/29/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2006 | 6.0 | -14.5 | 0.5 | < 0.05 | n/a | n/a | 3.8 | n/a | n/a | n/a | 320 | 280 | 81 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/20/2006 | 5.9 | -12.3 | 12.2 | < 0.05 | n/a | n/a | 6 | n/a | n/a | n/a | 240 | 220 | 74 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/21/2007 | 6.2 | -27.9 | 0.3 | < 0.05 | n/a | n/a | 10 | n/a | n/a | n/a | 290 | 220 | 66 | <1 | n/a | n/a | n/a | 0.063 | < 0.02 | < 0.02 |
| | 5/18/2009 | 6.5 | -199 | 0.1 | 0.029 | n/a | n/a | 8.24 | n/a | n/a | n/a | 242 | 144 | 82.6 | 0.389 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/3/2009 | 6.4 | -101 | 0.0 | < 0.01 | n/a | n/a | 8.21 | n/a | n/a | n/a | 235 | 137 | 84.9 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 6.5 | -12.0 | 2.0 | 0.024 | n/a | n/a | 15.3 | n/a | n/a | n/a | 238 | 137 | 376 | 0.386 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/6/2010 4/6/2011 | 6.7 6.3 | -51.0 -40.0 | 0.0 1.3 | 0.107 <0.03 | n/a n/a | n/a | 7.06 6.49 | n/a n/a | n/a n/a | n/a | 241 213 | 136 110 | 79.4 76.3 | <0.2 <0.2 | n/a | n/a | n/a n/a | n/a | n/a | n/a |
| | 10/16/2011 | 6.5 | -66.0 | 0.1 | < 0.03 | n/a | n/a n/a | | n/a | n/a n/a | n/a n/a | 224 | 129 | 84 | <0.2 | n/a n/a | n/a n/a | n/a | n/a n/a | n/a n/a | n/a n/a |
| | 4/16/2012 | 6.5 | -24.0 | 0.0 | < 0.03 | n/a | n/a | n/a n/a | n/a | n/a | n/a n/a | 209 | 117 | 81.3 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/22/2012 | 6.7 | -38.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 207 | 121 | 85.2 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/2/2013 | 6.7 | -40.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 198 | 115 | 83.8 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.3 | -36.0 | 0.3 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 188 | 115 | 71.8 | <0.2(B) | <0.2 | < 0.2 | <0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 6.4 | -7.1 | 0.3 | < 0.03 | 1.53 | n/a | 7.66 | n/a | 3.0 | 4.66 | 179 | 108 | 92.9 | 0.206 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.4 | -6.0 | 0.4 | < 0.03 | 1.54 | n/a | 6.86 | n/a | 3.0 | 3.86 | 174 | 108 | 97.2 | 0.484 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/14/2015 | 6.6 | 27.0 | 0.7 | < 0.03 | 0.045 | n/a | 4.79 | n/a | 1.0 | 3.79 | 180 | 111 | 97.8 | 0.234 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/13/2015 | 6.3 | 16.7 | 0.5 | <.3 | 1.19 | n/a | 5.71 | n/a | 2.0 | 3.71 | 158 | 99.2 | 100 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 6.7 | 0.0 | 1.7 | < 0.03 | 2 | n/a | 5.25 | n/a | 2.0 | 3.25 | 181 | 110 | 62.3 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/26/2016 | 6.4 | -53 | 0.7 | < 0.15 | 1.55 | n/a | 6.06 | n/a | 2.0 | 4.06 | 170 | 95.8 | 105 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/25/2017 | 6.5 | -30 | 1.0 | 0.07 | n/a | 1.43 | n/a | 5.49 | 3.0 | n/a | 204 | 106 | 98.5 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.5 | -31 | 0.7 | < 0.05 | 1.43 | n/a | 5.44 | n/a | 3.5 | 1.94 | 172 | 96.9 | 104 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 6.4 | -167 | 0.6 | < 0.05 | n/a | n/a | n/a | 1.82 | 2.0 | n/a | 158 | 89.3 | 99.9 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | m Oxygen Reduction Potential (ORP) | (DO) Dissolved Oxygen (DO) | (mg/L) Nitrate-Nitrite as N | (T) Total Manganese | m Dissolved Manganese | (mg/L) | (mg/L) Dissolved Iron | (a) Field Determined Ferrous (b) Tron (Fe2+) | (T/S) Ferric Iron (Fe3+) | Souffate (mg/L) | Chloride (m/Z) | by Total Alkalinity [as CaCO3] | (T/Sm) Total Organic Carbon | $ \stackrel{\pi}{\text{gg}} 2\text{-Chlorophenol} $ | (T/s/d) 2,6-Dichlorophenol | fa 2,4 Dichlorophenol | Methane (mg/L) | Ethane (A/gm) | Ethene (mg/L) |
|---------|------------------------|------------|------------------------------------|----------------------------|-----------------------------|---------------------|-----------------------|--------------|-----------------------|---|--------------------------|--------------------|----------------|--------------------------------|-----------------------------|---|----------------------------|-----------------------|----------------|---------------|---------------|
| MW-20D | 7/21/1999 | n/o | n/o | n/o | n/o | n/o | n/o | n/o | n/o | n/a | n/o | n/o | n/o | n/o | <10 | n/o | n/o | n/o | n/o | n/o | n/a |
| | 10/28/1999 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <10 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 10/28/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/24/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/26/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/4/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/31/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/26/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/27/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/29/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2006 | 6.3 | -41.1 | 1.0 | < 0.05 | n/a | n/a | 9.2 | n/a | n/a | n/a | 260 | 240 | 110 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.4 | 24.8 | 0.6 | < 0.05 | n/a | n/a | 11 | n/a | n/a | n/a | n/a | 200 | 94 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/21/2007 | 6.4 | -31.8 | 0.4 | < 0.05 | n/a | n/a | 16 | n/a | n/a | n/a | 280 | 190 | 80 | <1 | n/a | n/a | n/a | < 0.01 | < 0.02 | < 0.02 |
| | 5/18/2009 | 6.5 | -128 | 0.3 | 0.033 | n/a | n/a | 7.24 | n/a | n/a | n/a | 220 | 110 | 83.3 | 0.316 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/3/2009 | 6.6 | -38.0 | 0.0 | < 0.01 | n/a | n/a | 7.19 | n/a | n/a | n/a | 219 | 120 | 84.2 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/28/2010 | 6.6 | -14.0 | 0.0 | 0.049 | n/a | n/a | 9.8 | n/a | n/a | n/a | 242 | 111 | 335 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/6/2010 | 6.7 | -41.0 | 1.8 | 0.068 | n/a | n/a | 7.85 | n/a | n/a | n/a | 241 | 110 | 80 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/6/2011 | 5.8 | -41.0 | 0.6 | < 0.03 | n/a | n/a | 6.59 | n/a | n/a | n/a | 210 | 127 | 82.3 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2011 | 6.5 | -58.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 228 | 112 | 80.7 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/17/2012 | 6.6 | -24.0 | 0.1 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 212 | 100 | 87.5 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/21/2012 | 6.6 | -36.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 214 | 104 | 80.4 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/2/2013 | 6.6 | 1.0 | 0.1 | 0.058 | n/a | n/a | n/a | n/a | n/a | n/a | 200 | 98 | 80.5 | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.4 | -32.0 | 0.3 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 197 | 94.8 | 47.4 | <0.2(B) | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 6.4 | 25.8 | 0.4 | <0.03 | 2.46 | n/a | 9.46 | n/a | 3.0 | 6.46 | 191 | 86.3 | 81.6 | 0.22 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/7/2014 4/14/2015 | 6.5 6.5 | -22.0 53.0 | 0.3 0.9 | <0.03 <0.03 | 1.85 2.19 | n/a n/a | 7.85 5.74 | n/a n/a | 2.0 2.0 | 5.85 3.74 | 176 170 | 78.5 77.5 | 90.7 87.6 | <0.2 0.231 | <0.2 <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 6.6 | -19.4 | 0.9 | < 0.03 | 1.62 | n/a n/a | 7.01 | n/a n/a | 7.0 | 0.01 | 169 | 72.1 | 86.1 | 0.231 <1 | <0.2 | <0.2 | <0.2 | n/a n/a | n/a n/a | n/a n/a |
| | 4/4/2016 | 6.3 | 33.0 | 1.5 | < 0.03 | 2.73 | n/a | 10.8 | n/a | 2.0 | 8.8 | 173 | 71.8 | 48 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 6.5 | -21 | 0.3 | 0.055 | 1.59 | n/a | 6.44 | n/a | 3.0 | 3.44 | 156 | 66.5 | <6 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/25/2017 | 6.4 | 0.9 | 0.8 | < 0.05 | 1.32 | n/a | 4.62 | n/a | 3.0 | 1.62 | 159 | 68.9 | 87.3 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.4 | -19.7 | 0.3 | < 0.05 | 1.65 | n/a | 7.38 | n/a | 3.0 | 4.38 | 151 | 63.2 | 98.5 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 6.2 | -144.5 | 1.5 | 0.0521 | n/a | n/a | 1.94 | n/a | 1.5 | 0.44 | 141 | 62.2 | 90.6 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | рН | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|--------|------------|------|-------------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|---------|----------|-----------------------------|----------------------|----------------|--------------------|--------------------|---------|--------|--------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (µg/L) | (µg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-21S | | | | | | | | | | | | | | | | | | | | | |
| | 10/11/2006 | 6.2 | 94.7 | 4.7 | < 0.05 | n/a | n/a | 0.17 | n/a | n/a | n/a | 170 | 180 | 220 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/20/2006 | 6.4 | 9.0 | 0.5 | < 0.05 | n/a | n/a | 0.6 | n/a | n/a | n/a | 84 | 100 | 200 | <1 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 6.3 | 57.9 | 0.4 | < 0.05 | n/a | n/a | 1 | n/a | n/a | n/a | 69 | 110 | 160 | <1 | n/a | n/a | n/a | 0.025 | < 0.02 | < 0.02 |
| | 10/15/2008 | 6.2 | 27.3 | 0.2 | 0.03 | n/a | n/a | 0.608 | n/a | n/a | n/a | 43.5 | 129 | 115 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/22/2009 | 6.2 | -73.7 | 0.7 | < 0.01 | n/a | n/a | 1.87 | n/a | n/a | n/a | 42 | 148 | 113 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/9/2009 | 6.5 | 81.0 | 0.0 | < 0.01 | n/a | n/a | 0.524 | n/a | n/a | n/a | 38.3 | 148 | 113 | 0.201 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.2 | 55.0 | 0.0 | < 0.01 | n/a | n/a | 1.07 | n/a | n/a | n/a | 42.1 | 166 | 291 | < 0.0002 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/4/2010 | 6.4 | 53.0 | 0.0 | < 0.01 | n/a | n/a | 0.867 | n/a | n/a | n/a | 34.5 | 145 | 110 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 6.1 | 98.0 | 1.0 | < 0.03 | n/a | n/a | 0.48 | n/a | n/a | n/a | 36.3 | 160 | 118 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2011 | 6.4 | 59.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 33.1 | 145 | 106 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/11/2012 | 6.2 | 117 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 34.6 | 146 | 104 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2012 | 6.4 | 49.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 33.3 | 143 | 104 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/30/2013 | 6.5 | 101 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 9.77 | 18.2 | 108 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.0 | 102 | 0.4 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 32.2 | 142 | 108 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.0 | 163 | 1.3 | < 0.03 | 0.342 | n/a | 0.58 | n/a | < 0.5 | n/a | 34.4 | 138 | 97.9 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.0 | 90.6 | 0.4 | < 0.03 | 0.718 | n/a | 0.742 | n/a | 1.0 | n/a | 36.2 | 141 | 110 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 6.0 | 168 | 0.4 | < 0.03 | 0.410 | n/a | 0.516 | n/a | < 0.05 | n/a | 34.4 | 136 | 101 | 0.317 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 6.1 | 79 | 0.4 | < 0.03 | 0.796 | n/a | 0.721 | n/a | 0.5 | 0.221 | 48.9 | 141 | 124 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 6.0 | -69 | 0.3 | < 0.03 | 0.660 | n/a | 0.661 | n/a | 0.5 | 0.161 | 41.1 | 144 | 112 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/26/2016 | 6.1 | 89 | 0.9 | 0.031 | 0.869 | n/a | 0.94 | n/a | 1.0 | n/a | 68 | 147 | <6 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/25/2017 | 6.2 | 104 | 0.3 | 0.560 | 0.857 | n/a | 0.732 | n/a | < 0.5 | n/a | 40.3 | 141 | 120 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/23/2017 | 6.2 | -5 | 0.5 | < 0.05 | 0.775 | n/a | 0.84 | n/a | 0.5 | 0.34 | 69 | 139 | 138 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2018 | 6.1 | 79 | 0.3 | < 0.05 | n/a | n/a | 1.03 | n/a | 0.5 | 0.53 | 48.9 | 140 | 125 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Ha (SU) | Oxygen Reduction Potential (ORP) | E Dissolved Oxygen (DO) | (mg/L) Nitrate-Nitrite as N | (T/ T) Total Manganese | T Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous Tron (Fe2+) | (Mgm) Ferric Iron (Fe3+) | Sulfate | Chloride (mg/L) | Total Alkalinity [as CaCO3] | Total Organic Carbon | Τ 2-Chlorophenol | र्षेत्र 2,6-Dichlorophenol | r r 7. 2,4-Dichlorophenol | Methane (mg/L) | Ethane (T/km) | Ethene (mg/L) |
|-----------|------------|------------|--------------------------------------|-------------------------|-----------------------------|---------------------------|-----------------------|---------|----------|--------------------------------------|--------------------------|----------|-----------------|-----------------------------|----------------------|------------------|----------------------------|---------------------------------|----------------|---------------|---------------|
| MW-21D | Date | (50) | (111 7 3) | (IIIg/L) | (mg/L) | (IIIg/L) | (IIIg/L) | (Hig/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (µg/L) | (µg/L) | (µg/L) | (Hig/L) | (IIIg/L) | (mg/L) |
| WI W -21D | 10/11/2006 | 6.9 | -58.2 | 7.6 | < 0.05 | n/a | n/a | 1.7 | n/a | n/a | n/a | 8.9 | 94 | 210 | <1 | n/a | n/a | n/a | 3.2 | < 0.02 | < 0.01 |
| | 12/21/2006 | 7.0 | 53.8 | 0.3 | < 0.05 | n/a | n/a | 5.8 | n/a | n/a | n/a | 2.1 | 80 | 200 | <1 | n/a | n/a | n/a | 0.3 | < 0.02 | < 0.01 |
| | 3/20/2007 | 7.0 | -70.1 | 0.4 | < 0.05 | n/a | n/a | 1 | n/a | n/a | n/a | 3.1 | 96 | 200 | <1 | n/a | n/a | n/a | 2.5 | < 0.02 | < 0.02 |
| | 10/15/2008 | 6.9 | -166 | 0.1 | 0.014 | n/a | n/a | 0.967 | n/a | n/a | n/a | 2.14 | 82.6 | 190 | 6.62 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/22/2009 | 7.0 | -183 | 0.4 | 0.01 | n/a | n/a | 1.1 | n/a | n/a | n/a | 1.77 | 83.9 | 192 | 0.318 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/9/2009 | 7.0 | -125 | 0.0 | < 0.01 | n/a | n/a | 16.6 | n/a | n/a | n/a | 0.91 | 85 | 192 | 0.278 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 7.1 | -99.0 | 5.3 | < 0.01 | n/a | n/a | 1.55 | n/a | n/a | n/a | 1.02 | 84.7 | 88 | 0.858 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/4/2010 | 7.2 | -114 | 0.0 | < 0.01 | n/a | n/a | 2.48 | n/a | n/a | n/a | 0.64 | 84.4 | 208 | 0.964 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/5/2011 | 6.7 | -83.0 | 0.2 | < 0.03 | n/a | n/a | 0.958 | n/a | n/a | n/a | 0.4 | 82.2 | 209 | 0.953 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2011 | 7.2 | -90.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 83 | 205 | 0.348 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/11/2012 | 7.2 | -71.0 | 0.1 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 81.5 | 191 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2012 | 7.2 | -97.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.23 | 79.3 | 200 | 0.371 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/30/2013 | 7.6 | -53.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 81.4 | 202 | 0.271 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 7.0 | -99.0 | 0.4 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | < 0.2 | 78.4 | 201 | 0.808 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.8 | 7.9 | 0.5 | < 0.03 | 0.074 | n/a | 1.05 | n/a | 0.5 | 0.55 | < 0.2 | 77 | 193 | 0.327 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/9/2014 | 7.0 | -68.0 | 0.2 | < 0.03 | 0.068 | n/a | 1.81 | n/a | 1.5 | 0.31 | < 0.2 | 74.8 | 190 | 0.441 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 6.8 | -27.7 | 0.3 | < 0.03 | 0.065 | n/a | 1.24 | n/a | 1 | 0.24 | 0.28 | 74.2 | 182 | 0.656 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/11/2015 | 7.1 | -67.7 | 0.7 | < 0.3 | 0.072 | n/a | 2.26 | n/a | < 0.5 | n/a | < 0.5 | 74.5 | 190 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/4/2016 | 6.7 | -127.2 | 0.4 | < 0.03 | 0.054 | n/a | 1.26 | n/a | 1 | 0.26 | <0.5 | 75.9 | 191 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/26/2016 | 7.1 | -90.0 | 1.1 | < 0.03 | 0.0800 | n/a | 2.33 | n/a | 1.5 | 0.83 | <0.5 | 77.8 | 133 | <1 | < 0.2 | < 0.2 | 0.318 | n/a | n/a | n/a |
| | 4/25/2017 | 6.9 | -51.0 | 0.3 | < 0.05 | n/a | < 0.1 | n/a | 0.922 | 1.0 | n/a | <0.5 | 82.2 | 184 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/23/2017 | 6.9 | -7.2 | 0.6 | < 0.05 | n/a | < 0.1 | n/a | 1.250 | 1.5 | n/a | < 0.5 | 79.8 | 174 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2018 | 6.9 | -40.8 | 0.5 | < 0.05 | n/a | n/a | n/a | 0.893 | 1.0 | n/a | < 0.5 | 83 | 173 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | н | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|--------|--------------------------|------------|--------------------------------------|-----------------------|----------------------|-----------------|---------------------|-----------------|----------------|--|--------------------|------------|---------------|-----------------------------|----------------------|----------------|--------------------|--------------------|--------------|----------------|----------------|
| ID | Date | (SU) | (III V S) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (μg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-22S | 10/10/2005 | <i>c</i> 1 | 1.64 | 2.1 | 0.05 | , | , | 0.00 | , | , | , | 4.50 | 250 | 41 | | , | , | , | 0.1 | 0.02 | 0.01 |
| | 10/19/2006 12/19/2006 | 6.1 | 164 134 | 3.1 0.6 | <0.05 <0.05 | n/a n/a | n/a | 0.09 0.033 | n/a | n/a | n/a | 460 | 350 290 | 41 160 | <1 | n/a | n/a | n/a | <0.1 <0.1 | <0.02 <0.02 | <0.01 <0.01 |
| | 3/22/2007 | 6.1 5.9 | 108 | 0.6 | <0.05 | | n/a | 0.033 | n/a | n/a | n/a | n/a | | 150 | <1 | n/a | n/a | n/a | | <0.02 | |
| | 9/28/2007 | | | | | n/a | n/a | | n/a | n/a | n/a | 510 | 360 | | <1 0.43 | n/a | n/a | n/a | 0.012 | | <0.02 |
| | | 6.0 | -13.6 | 0.3 | < 0.01 | n/a | n/a | 0.128 | n/a | n/a | n/a | 401 | 264 | 162 | | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/19/2009 11/3/2009 | 6.1 | -17.3 30.0 | 7.7 0.0 | 0.01 <0.01 | n/a | n/a | 0.0364 | n/a | n/a | n/a | 547 582 | 356 366 | 162 165 | 0.444 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.1 | | | | n/a | n/a | 0.289 | n/a | n/a | n/a | | | | 1.15 | n/a | n/a | n/a | n/a | n/a | n/a |
| | | 6.4 | 150 | 3.0 | < 0.01 | n/a | n/a | 0.761 | n/a | n/a | n/a | 545 | 362 | 976 | 0.251 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2010 | 6.3 | 74.0 | 0.0 | < 0.01 | n/a | n/a | 0.365 | n/a | n/a | n/a | 623 | 383 | 158 | 1.64 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 10/16/2011 | 5.6 | 139 88.0 | 0.6 0.0 | <0.03 <0.03 | n/a | n/a | 0.163 | n/a | n/a | n/a | 521 627 | 363 381 | 168 151 | 2.61 0.474 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/16/2012 | 6.1 6.2 | | | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 702 | 389 | | <0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/21/2012 | | 169 96.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | | 333 | 145 144 | 1.01 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/1/2013 | 6.3 6.2 | 139 | 0.0 | < 0.03 | n/a n/a | n/a | n/a n/a | n/a | n/a | n/a | 550 759 | 382 | 144 | 0.836 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.0 | 148 | 0.4 | < 0.03 | | n/a | | n/a | n/a | n/a | 678 | 347 | 159 | 2.27 | n/a <0.2 | n/a <0.2 | n/a <0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 6.3 | 121 | 0.4 | < 0.03 | n/a 0.154 | n/a | n/a 0.0889 | n/a | n/a <0.5 | n/a | 631 | 296 | 151 | 2.45 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 6.0 | 157 | 0.3 | | 0.134 | n/a | | n/a | | n/a | 680 | | 140 | 0.323 | | | | n/a | n/a | n/a |
| | 4/16/2015 | | 196 | 0.4 | <0.03 <0.03 | 0.196 | n/a n/a | 0.0754 0.289 | n/a n/a | <0.5 <0.5 | n/a n/a | 720 | 316 328 | 139 | 0.323 | <0.2 <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 11/13/2015 | 6.0 | | | < 0.03 | 0.320 | | 0.289 | | | 0.221 | 683 | | | | | | | n/a | n/a | n/a |
| | 4/6/2016 | 6.8 | 48 198 | 0.6 | <0.03 | 0.320 | n/a | <0.200 | n/a | 0.5 | | 683 772 | 305 | 178 154 | 9.89 1.86 | <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 10/28/2016 | 6.2 | 198 40 | 1.9 1.4 | <0.03 | 0.234 | n/a | <0.200 0.36 | n/a | <0.5 0.5 | n/a | 692 | 320(B) 288 | 154 179 | 7.16 | <0.2 <0.2 | <0.2 | <0.2 0.403 | n/a | n/a | n/a |
| | 4/25/2016 | 6.4 | | | <0.03 | | n/a | | n/a | | n/a | | | | | | | | n/a | n/a | n/a |
| | | 6.2 | 64 | 0.5 | | <1 | n/a | <5 | n/a | NR | n/a | 723 | 273 | 167 | 3.94 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.2 | 92 | 0.4 | < 0.05 | 0.129 | n/a | <0.5 | n/a | <0.5 | n/a | 791 | 265 | 128 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 6.1 | -168 | 0.5 | < 0.05 | n/a | n/a | 0.0672 | n/a | NR | n/a | 809 | 258 | 129 | 2.49 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | рН | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | TotalIron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|--------|------------|------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|-----------|----------------|---|--------------------|---------|----------|-----------------------------|----------------------|----------------|--------------------|--------------------|---------|--------|--------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (μg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-22D | | | | | | | | | | | | | | | | | | | | | |
| | 10/19/2006 | 6.7 | -50.1 | 0.4 | < 0.05 | n/a | n/a | 1.5 | n/a | n/a | n/a | 7 | 110 | 120 | <1 | n/a | n/a | n/a | 0.31 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.7 | -43.1 | 0.6 | < 0.05 | n/a | n/a | 2.7 | n/a | n/a | n/a | n/a | 140 | 150 | <1 | n/a | n/a | n/a | 0.38 | < 0.02 | < 0.01 |
| | 3/22/2007 | 6.6 | -113 | 0.3 | < 0.05 | n/a | n/a | 3.7 | n/a | n/a | n/a | 130 | 190 | 140 | <1 | n/a | n/a | n/a | 0.71 | < 0.02 | < 0.02 |
| | 9/26/2008 | 6.5 | -122 | 0.1 | < 0.01 | n/a | n/a | 3.03 | n/a | n/a | n/a | 130 | 164 | 143 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/19/2009 | 6.7 | -168 | 0.6 | 0.041 | n/a | n/a | 2.05 | n/a | n/a | n/a | 104 | 134 | 145 | 0.221 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/3/2009 | 6.7 | -65.0 | 0.0 | < 0.01 | n/a | n/a | 2.88 | n/a | n/a | n/a | 111 | 149 | 139 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.7 | -11.0 | 0.0 | 0.01 | n/a | n/a | 2.86 | n/a | n/a | n/a | 113 | 143 | 293 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2010 | 6.9 | -59.0 | 0.0 | 0.022 | n/a | n/a | 3.34 | n/a | n/a | n/a | 114 | 137 | 134 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 6.9 | -64.0 | 1.6 | < 0.03 | n/a | n/a | 2.13 | n/a | n/a | n/a | 102 | 140 | 139 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/16/2011 | 6.9 | -79.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 105 | 139 | 140 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/16/2012 | 6.9 | -24.0 | 0.3 | 0.042 | n/a | n/a | n/a | n/a | n/a | n/a | 92.6 | 141 | 143 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/21/2012 | 7.0 | -69.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 87.7 | 133 | 141 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/1/2013 | 7.0 | 91.0 | 2.5 | 0.067 | n/a | n/a | n/a | n/a | n/a | n/a | 90.6 | 146 | 143 | 0.798 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.7 | -35.0 | 0.5 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 84.3 | 134 | 149 | 0.234 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 6.6 | 51.9 | 1.8 | 0.062 | 0.264 | n/a | 1.04 | n/a | 0.5 | 0.54 | 79.8 | 130 | 142 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 6.7 | -75.7 | 0.3 | < 0.03 | 0.399 | n/a | 2.41 | n/a | 2.0 | 0.41 | 70.9 | 127 | 150 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/16/2015 | 6.5 | 6.3 | 0.3 | < 0.06 | 0.341 | n/a | 1.11 | n/a | < 0.5 | n/a | 63.6 | 121 | 148 | 0.528 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/13/2015 | 7.0 | 14 | 0.5 | < 0.03 | 0.359 | n/a | 2.48 | n/a | < 0.5 | n/a | 63.7 | 120 | 141 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 7.1 | 174 | 5.5 | 0.124(B) | 0.0673 | n/a | 0.813 | n/a | < 0.5 | n/a | 67.1 | 124(B) | 135 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/28/2016 | 6.8 | -39 | 1.3 | < 0.03 | 0.4380 | n/a | 1.91 | n/a | 2.0 | n/a | 61 | 125 | 139 | <1 | < 0.2 | < 0.2 | 0.458 | n/a | n/a | n/a |
| | 4/25/2017 | 6.9 | 31 | 1.8 | < 0.05 | 0.1590 | n/a | 0.514 | n/a | < 0.5 | n/a | 54 | 120 | 156 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/24/2017 | 6.9 | -106 | 0.5 | < 0.05 | n/a | 0.5 | n/a | 4.6 | 2.5 | 2.1 | 41.3 | 118 | 171 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2018 | 7 | -135.5 | 1.66 | 0.1270 | n/a | n/a | 0.5 | n | < 0.5 | n/a | 44.8 | 115 | 151 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Hd | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|-------|------------|------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|---------|----------|-----------------------------|----------------------|----------------|--------------------|--------------------|---------|--------|--------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (µg/L) | (µg/L) | (mg/L) | (mg/L) | (mg/L) |
| MW-23 | | | | | | | | | | | | | | | | | | | | | |
| | 10/18/2006 | 6.8 | -83.1 | 0.6 | < 0.05 | n/a | n/a | 0.9 | n/a | n/a | n/a | 23 | 44 | 170 | 1 | n/a | n/a | n/a | 0.14 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.8 | -216 | 0.3 | < 0.05 | n/a | n/a | 1.1 | n/a | n/a | n/a | n/a | 51 | 210 | 1.7 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/22/2007 | 7.1 | -118 | 0.4 | < 0.05 | n/a | n/a | 3.1 | n/a | n/a | n/a | 43 | 47 | 200 | 1.8 | n/a | n/a | n/a | 0.58 | < 0.02 | < 0.02 |
| | 9/25/2008 | 6.7 | -141 | 0.1 | < 0.01 | n/a | n/a | 1.28 | n/a | n/a | n/a | 94.4 | 81.8 | 148 | 0.00554 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/19/2009 | 6.9 | -167 | 0.3 | 0.057 | n/a | n/a | 1.73 | n/a | n/a | n/a | 108 | 90.5 | 141 | 0.209 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/4/2009 | 6.6 | -54.0 | 0.0 | < 0.01 | n/a | n/a | 1.52 | n/a | n/a | n/a | 132 | 93.5 | 141 | 0.941 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 1.2 | 258 | 0.0 | < 0.01 | n/a | n/a | 1.6 | n/a | n/a | n/a | 107 | 86.8 | 201 | 0.637 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 7.1 | -72.0 | 0.1 | 0.025 | n/a | n/a | 1.56 | n/a | n/a | n/a | 127 | 95.1 | 151 | 2.23 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/6/2011 | 6.3 | -119 | 0.5 | < 0.03 | n/a | n/a | 1.59 | n/a | n/a | n/a | 126 | 93.1 | 180 | 1.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/13/2011 | 7.0 | -54.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 113 | 90.6 | 175 | 1.23 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/10/2012 | 7.0 | -66.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 122 | 90.7 | 163 | 1.25 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2012 | 7.2 | -62.0 | 0.4 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 125 | 89.3 | 154 | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/1/2013 | 7.5 | 161 | 6.2 | 0.125 | n/a | n/a | n/a | n/a | n/a | n/a | 123 | 90.9 | 177 | 1.59 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2013 | 6.9 | 65.0 | 0.7 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 115 | 82.9 | 186 | 3.12 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 7.0 | -48.8 | 0.6 | < 0.03 | 0.191 | n/a | 1.92 | n/a | 1.5 | 0.42 | 111 | 73 | 218 | 5.73 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.8 | -41.4 | 0.3 | < 0.3 | 0.291 | n/a | 1.33 | n/a | 1.0 | 0.33 | 120 | 81.9 | 162 | 1.15 | < 0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 6.9 | -53.4 | 0.3 | < 0.06 | 0.168 | n/a | 1.62 | n/a | 1.0 | 0.62 | n/a | 76.8 | 186 | 5.64 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/12/2015 | 7.6 | 242 | 0.5 | < 0.3 | 0.276 | n/a | 1.65 | n/a | 1.5 | 0.15 | 121 | 79.6 | 197 | 2.95 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 6.7 | -100 | 0.4 | < 0.03 | 0.18 | n/a | 1.38 | n/a | 1.5 | n/a | 139 | 86.3 | 138 | <1 | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 7.2 | -38 | 0.7 | < 0.03 | 0.184 | n/a | 1.61 | n/a | 2.0 | n/a | 126 | 84.5 | 164 | 2.04 | < 0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/24/2017 | 6.7 | -24.7 | 0.5 | < 0.05 | 0.392 | n/a | 2.27 | n/a | 2.0 | 0.27 | 148 | 90.2 | 137 | <1 | < 0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/23/2017 | 7.0 | -43.6 | 0.4 | < 0.05 | 0.254 | n/a | 1.85 | n/a | 2.0 | n/a | 143 | 85.1 | 157 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/23/2018 | 6.9 | -158 | 0.7 | < 0.05 | n/a | n/a | 2.07 | n/a | 2.0 | 0.07 | 140 | 85.1 | 183 | 2.05 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | Oxygen Reduction Potential (ORP) | m JZ Dissolved Oxygen (DO) | by Nitrate-Nitrite as N | (MZ) Total Manganese | (m) Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous Tron (Fe2+) | Mg/W Ferric Iron (Fe3+) | Sulfate (mg/L) | Chloride (mg/L) | Total Alkalinity [as CaCO3] | m (Tal Organic Carbon | 7/S 2-Chlorophenol | 77 2,6-Dichlorophenol | 元 元 7. 2,4-Dichlorophenol | (mg/L) Methane | (Thane | (Tygm) |
|------------|-------------------------|------------|--------------------------------------|-------------------------------|-------------------------|----------------------|-------------------------|-----------------|------------|---------------------------------------|-------------------------|----------------|-----------------|-----------------------------|--------------------------|--------------------|-----------------------|---------------------------------|----------------|------------|------------|
| | Date | (50) | (== : =) | (| (| (| (| (| (| (| (8) | (| (8) | (8) | (8) | (F8 =) | (F-8' / | (F8 = / | (| (8) | (|
| RW-1 | 7/10/1000 | / | / | / | / | / | / | / | / | / | / | / | / | / | 20.5 | / | / | / | / | / | / |
| | 7/19/1999 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 20.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | 3060 3320 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | 1470 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 223 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 15.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 9.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 14 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 18 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 20 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 71 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 33 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 9.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 14 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 24 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 9/27/2006 | 6.0 | -26.9 | 0.8 | < 0.05 | n/a | n/a | 1.8 | n/a | n/a | n/a | 69 | 75 | 100 | 8.5 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/19/2006 | 6.7 | -69.9 | 0.8 | 0.1 | n/a | n/a | 1.5 | n/a | n/a | n/a | n/a | 36 | 80 | 3.6 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/21/2007 | 6.6 | -211 | 0.7 | < 0.05 | n/a | n/a | 3.5 | n/a | n/a | n/a | 76 | 120 | 200 | 3.6 | n/a | n/a | n/a | 0.19 | < 0.02 | < 0.02 |
| | 10/8/2008 | 6.5 | 1.8 | 0.1 | < 0.01 | n/a | n/a | 0.698 | n/a | n/a | n/a | 30.6 | 19.5 | 85.9 | 7.09 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/22/2009 | 6.9 | -268 | 1.8 | < 0.01 | n/a | n/a | 0.16 | n/a | n/a | n/a | 82.7 | 182 | 208 | 3.92 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/5/2009 | 7.1 | -338 | n/a | < 0.01 | n/a | n/a | 0.07 | n/a | n/a | n/a | 38.6 | 243 | 264 | 3.15 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.8 | -204 | 8.6 | < 0.01 | n/a | n/a | 0.0679 | n/a | n/a | n/a | 103 | 219 | 182 | 3.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2010 | 7.3 | -268 | 0.0 | < 0.01 | n/a | n/a | 0.027 | n/a | n/a | n/a | 71.4 | 190 | 245 | 3.79 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 7.0 | -211 | 0.5 | < 0.03 | n/a | n/a | 0.161 | n/a | n/a | n/a | 108 | 257 | 286 | 2.72 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/13/2011 | 6.7 | -265 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 80.6 | 234 | 290 | 2.06 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2012 | 6.8 | -264 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 91 | 192 | 254 | 1.15 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/23/2012 | 6.9 | -274 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 104 | 215 | 280 | 1.94 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/7/2013 | 7.3 | -233 | 0.0 | <0.3 | n/a | n/a | n/a | n/a | n/a | n/a | 47 | 116 | 210 | 2.81 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.7 | -105 | 0.2 | < 0.03 | n/a 5.45 | n/a | n/a | n/a | n/a | n/a | 66.8 | 178 | 265 | 2.87(B) | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/23/2014 10/8/2014 | 6.8 | 142 -208 | 0.0 | <0.15 <0.03 | 5.45 9.14 | n/a | 0.0816 0.344 | n/a | <0.5 | n/a | 95 119 | 232 280 | 277 | 1.43 1.43 | <2 <2 | <2 | <2 <2 | n/a | n/a | n/a |
| | 4/15/2015 | 6.8 6.7 | -208 -195 | 0.3 | <0.03 | 3.28 | n/a n/a | <.2 | n/a n/a | <0.5 <0.5 | n/a <.2 | 119 | 280 191 | 316 253 | 3.42 | <2 | <2 <2 | <2 | n/a n/a | n/a n/a | n/a n/a |
| | 11/13/2015 | 7.0 | -195 215 | 0.7 | <0.15 | 7.38 | n/a n/a | 0.332 | n/a n/a | 0.5 | <.2 n/a | 142 | 230 | 332 | 1.85 | <2 | <2 | <2 | n/a n/a | n/a n/a | n/a n/a |
| | 4/6/2016 | 6.8 | -132 | 1.0 | < 0.30 | 7.38 | n/a | < 0.020 | n/a | <0.5 | < 0.020 | 136 | 241(B) | 280 | <10 | <2 | <2 | <1 | n/a | n/a | n/a |
| | 10/27/2016 | 6.2 | -238 | 0.3 | < 0.15 | 7.61 | n/a | <0.020 | n/a | <0.5 | <0.020 | 113 | 241(B) 251 | 308 | 2.35 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/27/2017 | 6.7 | -238 | 0.3 | <0.15 | 6.59 | n/a | <5 | n/a | 0.5 | n/a | 124 | 237 | 63.5 | 1.58 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/26/2017 | 6.8 | -294 | 0.4 | <0.5 | 7.51 | n/a | <0.5 | n/a | 0.5 | n/a | 107 | 253 | <60 | 2.14 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/25/2018 | 6.7 | -185 | 0.2 | < 0.05 | n/a | n/a | 0.0683 | n/a | NR | n/a | 78.3 | 191 | 250 | 2.73 | <2 | <2 | <2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Ha (SU) | Oxygen Reduction Potential (ORP) | (mg/L) Dissolved Oxygen (DO) | (bg) Nitrate-Nitrite as N | (J/T) Total Manganese | (JZ) Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous | m)/Ferric Iron (Fe3+) | Sulfate (mg/L) | Chloride | Total Alkalinity [as CaCO3] | (Trotal Organic Carbon | απ (Τ/ 2-Chlorophenol | 77 2,6-Dichlorophenol | க் 7 2,4-Dichlorophenol | Methane (mg/L) | (Thane | Ethene (Mg/L) |
|------------|------------------|------------|--------------------------------------|-------------------------------|---------------------------|-----------------------|--------------------------|----------|--------|--------------------------|-----------------------|-------------------|----------|-----------------------------|------------------------|--------------------------|-----------------------|----------------------------|----------------|--------|---------------|
| RW-2 | Dutt | . , | | | | | | | | | | | | | | | 40 | ,,,, | | | |
| 10.44-2 | 7/19/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 32.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 20.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 14.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 6.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 8.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 9/27/2006 | 6.4 | -115 | 0.3 | 0.05 | n/a | n/a | 1.3 | n/a | n/a | n/a | 40 | 68 | 99 | 11 | n/a | n/a | n/a | 0.24 | < 0.02 | < 0.01 |
| | 12/21/2006 | 6.5 | 110 | 5.7 | 0.08 | n/a | n/a | 1.4 | n/a | n/a | n/a | 9.5 | 8.5 | 16 | 22 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/21/2007 | 6.8 | -252 | 0.4 | < 0.05 | n/a | n/a | 2.1 | n/a | n/a | n/a | 11 | 54 | 96 | 16 | n/a | n/a | n/a | 1.1 | < 0.02 | < 0.02 |
| | 10/10/2008 | 6.7 | -24.2 | 0.1 | < 0.01 | n/a | n/a | 1.36 | n/a | n/a | n/a | 5.67 | 8.63 | 45.8 | 14 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/5/2009 | 7.2 | -68.0 | n/a | < 0.01 | n/a | n/a | 0.783 | n/a | n/a | n/a | 17.9 | 25.7 | 74 | 5.36 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.8 | -100 | 0.0 | < 0.01 | n/a | n/a | 0.481 | n/a | n/a | n/a | < 0.01 | 258 | 191 | 1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2010 | 6.8 | -289 | 0.0 | < 0.01 | n/a | n/a | 0.232 | n/a | n/a | n/a | 88.1 | 288 | 202 | 3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 7.1 | -121 | 0.8 | < 0.03 | n/a | n/a | 0.303 | n/a | n/a | n/a | 70.4 | 76 | 131 | 6.34 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2011 | 6.8 | -189 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 17 | 115 | 140 | 9.28 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/19/2012 | 7.0 | -75.0 | 0.5 | 0.106 | n/a | n/a | n/a | n/a | n/a | n/a | 23.2 | 43 | 90.2 | 11.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/23/2012 | 7.0 | -60.0 | 0.0 | 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 22 | 31.5 | 73.2 | 10.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/7/2013 | 7.2 | -206 | 2.1 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 12.4 | 46.8 | 104 | 5.26 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.5 | -72.0 | 0.0 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 7.17 | 106 | 151 | 11.3(B) | 0.646 | < 0.222 | < 0.222 | n/a | n/a | n/a |
| | 4/21/2014 | Floode | d below gra | de surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/8/2014 | 6.8 | -125 | 0.2 | < 0.03 | 2.84 | n/a | 0.282 | n/a | n/a | n/a | 2.7 | 84 | 133 | 7.4 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | | | de surface | | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 11/13/2015 | 6.7 | 226 | 0.4 | < 0.03 | 0.857 | n/a | 0.913 | n/a | < 0.5 | n/a | 34.6 | 35.0 | 68.8 | 9.76 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | Floode | d below gra | de surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/27/2016 | 5.8 | -99.7 | 0.3 | < 0.03 | 0.934 | n/a | 1.88 | n/a | 1 | 0.88 | 2 | 32.4 | 84.4 | 11.3 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2017 | Floode | d below gra | de surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/26/2017 | 6.6 | -61.5 | 1.1 | < 0.05 | 2.4 | n/a | 1.9 | n/a | 2.0 | n/a | 2.69 | 56.4 | 89.3 | 11.5 | < 0.2 | < 0.2 | 0.328 | n/a | n/a | n/a |
| | 4/23/2018 | Floode | d below gra | de surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| | Sampling | Нq | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|------|------------------------|------------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|------------------|----------------|---|--------------------|------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (μg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| RW-3 | | | | | | | | | | | | | | | | | | | | | |
| | 7/19/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 24.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 198 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | <10 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | 1.8 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | 1.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| , | 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| - | 10/1/2006 | 6.5 | -58.3 | 6.5 | < 0.05 | n/a | n/a | 13 | n/a | n/a | n/a | 34 | 93 | 130 | 5.5 | n/a | n/a | n/a | 0.45 | < 0.02 | < 0.01 |
| 1 | 12/21/2006 | 6.5 | 148 | 7.4 | < 0.05 | n/a | n/a | 1 | n/a | n/a | n/a | 18 | 15 | 20 | 19 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| 1 | 3/21/2007 | 6.6 | -156 | 0.4 | < 0.05 | n/a | n/a | 4.2 | n/a | n/a | n/a | 48 | 100 | 110 | 2.5 | n/a | n/a | n/a | 0.43 | < 0.02 | < 0.02 |
| | 10/9/2008 | 6.8 | 8.0 | 3.9 | 0.065 | n/a | n/a | 0.46 | n/a | n/a | n/a | 7.92 | 4.42 | 40.4 | 11.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/10/2009 | 7.3 | -43.0 | 0.0 | < 0.01 | n/a | n/a | 0.649 | n/a | n/a | n/a | 27.4 | 58 | 115 | 3.82 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 7.0 | -79.0 | 0.0 | < 0.01 | n/a | n/a | 2.37 | n/a | n/a | n/a | 0 | 224 | 197 | 1.22 | n/a | n/a | n/a | n/a | n/a | n/a |
| III | 4/13/2011 | 6.1 | 81.0 | 0.8 | 0.038 | n/a | n/a | 0.348 | n/a | n/a | n/a | 39.1 | 46.7 | 96.6 | 4.56 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2011 | 7.1 | -147 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 75.8 | 168 | 173 | 2.18 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/8/2013 | 7.3 | -26.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 35.1 | 65.9 | 122 | 1.83 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2013 | 6.7 | -74.0 | 0.2 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 61.4(B) | 131 | 167 | 1.27(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | | _ | | | therefore w | | - | | 2.0 | 0.50 | | 100 | 1=0 | 2.2. | | | | | | |
| | 10/7/2014 | 6.8 | -95.0 | 0.2 | 0.06 | 5.47 | n/a | 2.58 | n/a | 2.0 | 0.58 | 61.6 | 139 | 150 | 2.36 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | | | | | therefore w | | - | / | 1.0 | / | 90.2 | 126 | 100 | 2.0 | -0.2 | -0.2 | -0.2 | / | / | / |
| | 11/13/2015 4/5/2016 | 6.6 | 162 | 0.3 | <0.03 | 4.55 | n/a | 0.587 | n/a | 1.0 | n/a | 80.3 | 136 | 188 | 2.8 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 10/27/2016 | 6.0 | -67.5 | ide surrace o | <0.03 | therefore w | n/a | sampled. 2.05 | n/a | 2.0 | 0.05 | 43 | 105 | 140 | 2.94 | < 0.2 | < 0.2 | < 0.2 | n/a | n/o | n/e |
| | 4/24/2017 | | | | | therefore w | | | 11/21 | 2.0 | 0.03 | 43 | 103 | 140 | 2.94 | <0.2 | <0.2 | <0.2 | II/d | n/a | n/a |
| | 10/25/2017 | 6.8 | -58.7 | 0.4 | <0.05 | 6.4 | n/a | 3.6 | n/a | 1.5 | 2.06 | 80.3 | 164 | 189 | 1.3 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2017 | | | | | therefore w | | | 11/ a | 1.3 | 2.00 | 00.3 | 104 | 107 | 1.3 | \0. 2 | <0.∠ | <0.∠ | 11/а | 11/а | 11/ a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | B Oxygen Reduction Potential (S) (ORP) | (mg Dissolved Oxygen (DO) | (mg/L) Nitrate-Nitrite as N | 6m) Total Manganese | Sam Dissolved Manganese | (mg/L) | (mg/L) | Eield Determined Ferrous | (T/Sam) (Fe3+) | Sulfate | Chloride | (Trotal Alkalinity [as CaCO3] | (T/Sun) (T/ani Organic Carbon | (T/Sthorophenol | απ (γα 2, 6-Dichlorophenol | ரி (yd 2,4-Dichlorophenol | Methane (mg/L) | Ethane (L/gm) | (T/Sau) |
|------------|------------------|---------|---|---------------------------|--------------------------------|---------------------|-------------------------|----------|--------|--------------------------|----------------|---------|----------|-------------------------------|-------------------------------|-----------------|----------------------------|------------------------------|----------------|---------------|---------|
| RW-4 | | | | | | | | | | | | | | | | | | | | | |
| | 7/19/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 78.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 16.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 15.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 8.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 7.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 9.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 6.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/1/2006 | 6.6 | -108 | 1.0 | 1.2 | n/a | n/a | 4.6 | n/a | n/a | n/a | 29 | 35 | 120 | 7.3 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 12/21/2006 | 6.6 | 153 | 7.2 | < 0.05 | n/a | n/a | 1.1 | n/a | n/a | n/a | 22 | 30 | 29 | 15 | n/a | n/a | n/a | 0.85 | < 0.02 | < 0.01 |
| | 3/21/2007 | 7.1 | -5.9 | 0.3 | < 0.05 | n/a | n/a | 0.47 | n/a | n/a | n/a | 33 | 50 | 240 | 4.9 | n/a | n/a | n/a | 0.53 | < 0.02 | < 0.02 |
| | 10/9/2008 | 6.8 | 69.1 | 2.6 | 0.106 | n/a | n/a | 6.38 | n/a | n/a | n/a | 9.52 | 139 | 173 | 0.92 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 6.7 | -28.0 | 0.0 | < 0.01 | n/a | n/a | 2.94 | n/a | n/a | n/a | 43.5 | 156 | 160 | 2.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2011 | 6.7 | -66.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 29.7 | 84.3 | 123 | 1.94 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.5 | -79.0 | 0.3 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 10.4 | 47.3 | 94.7 | 8.85(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | Floode | d below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/7/2014 | 6.9 | -92.0 | 0.3 | < 0.03 | 0.959 | n/a | 12.9 | n/a | 1.5 | 11.4 | 19.5 | 65.2 | 136 | 4.77 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | Floode | d below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 11/13/2015 | | - | | - | therefore w | | - | | | | | | | | | | | | | |
| | 4/5/2016 | Floode | d below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/27/2016 | 6.3 | -34.7 | 0.2 | 0.073 | 0.768 | n/a | 6.46 | n/a | 2.0 | 4.46 | 32 | 80.1 | 62.7 | 2.62 | < 0.2 | < 0.2 | 0.427 | n/a | n/a | n/a |
| | 4/24/2017 | Floode | d below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/25/2017 | 6.6 | -72.7 | 0.5 | < 0.05 | 0.867 | n/a | 7.22 | n/a | 2.0 | 5.22 | 35.5 | 78.6 | 167 | 1.83 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2018 | Floode | d below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Нq | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|------|------------------------|------------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| RW-5 | | | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 14.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 14.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 14.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.1 2.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a | 1.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a n/a | n/a n/a | n/a | n/a n/a | n/a | n/a n/a | n/a | n/a | n/a | n/a | n/a n/a | n/a n/a | 1.1 | n/a n/a | n/a | n/a n/a | n/a n/a | n/a | n/a |
| | 8/22/2005 | n/a n/a | | | n/a | | n/a | | | n/a | n/a | n/a | | | 5.5 | | n/a | | | n/a | n/a |
| | 2/21/2006 | n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | 1.4 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2006 | 6.5 | -51.7 | 7.2 | 0.33 | n/a | n/a | 24 | n/a | n/a | n/a | 25 | 45 | 72 | 10 | n/a | n/a | n/a | 0.35 | < 0.02 | < 0.01 |
| | 12/20/2006 | 7.4 | 89.8 | 4.2 | 0.33 | n/a | n/a | 0.23 | n/a | n/a | n/a | 170 | 97 | 110 | 2.3 | n/a | n/a | n/a | < 0.1 | < 0.02 | < 0.01 |
| | 3/20/2007 | 7.0 | 30.2 | 0.3 | < 0.05 | n/a | n/a | 0.66 | n/a | n/a | n/a | 26 | 25 | 92 | 7.6 | n/a | n/a | n/a | 0.088 | < 0.02 | < 0.02 |
| | 10/11/2010 | 6.6 | -89.0 | 0.0 | < 0.01 | n/a | n/a | 15.5 | n/a | n/a | n/a | 22.6 | 116 | 85.5 | 5.42 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2011 | 6.6 | -76.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 27.7 | 118 | 130 | 2.39 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2013 | 6.4 | -56.0 | 0.5 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 5 | 119 | 111 | 2.39(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | | | | completion, | | | | | | | - | | | ,(_) | | | | | | |
| | 10/7/2014 | 6.7 | -79.0 | 0.3 | < 0.03 | 1.46 | n/a | 14.8 | n/a | 2.5 | 12.3 | 4.77 | 115 | 163 | 1.6 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | | | | completion, | | | | | | | | - | | | | | | | | |
| | 11/13/2015 | | | | completion, | | | | | | | | | | | | | | | | |
| | 4/5/2016 | | | | completion, | | | | | | | | | | | | | | | | |
| | 10/27/2016 | 6.4 | -61.6 | 0.7 | < 0.15 | 1.43 | n/a | 10.6 | n/a | 2.0 | 8.6 | 11 | 118 | 56.8 | 3.31 | < 0.2 | < 0.2 | 0.434 | n/a | n/a | n/a |
| | 4/24/2017 | Floode | ed below gra | ade surface | completion, | therefore w | | | | | | | | | | | | | | | |
| | 10/25/2017 | 6.8 | -105.9 | 1.3 | < 0.05 | 1.59 | n/a | 15.2 | n/a | 1.5 | 13.7 | 18.6 | 116 | 217 | 3.55 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2018 | Floode | ed below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Hď | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Tron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|------|-----------------------|------------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|------------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (μg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| RW-6 | | | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | <1 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2006 | 6.0 | 12.7 | 1.6 | < 0.05 | n/a | n/a | 4.5 | n/a | n/a | n/a | 32 | 140 | 120 | 2.4 | n/a | n/a | n/a | 0.12 | < 0.02 | < 0.01 |
| | 12/20/2006 | 6.9 | -22.0 | 0.6 | < 0.05 | n/a | n/a | 1.6 | n/a | n/a | n/a | 49 | 49 | 150 | 4.2 | n/a | n/a | n/a | <0.12 | < 0.02 | < 0.01 |
| | 3/21/2007 | 6.8 | 107 | 0.4 | < 0.05 | n/a | n/a | 6.9 | n/a | n/a | n/a | 36 | 100 | 180 | 2.5 | n/a | n/a | n/a | 0.11 | < 0.02 | < 0.02 |
| | 10/10/2008 | 6.7 | -48.9 | 0.5 | 0.164 | n/a | n/a | 0.624 | n/a | n/a | n/a | 7.71 | 9.08 | 43.6 | 11 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/22/2009 | 6.7 | -88.6 | 3.0 | 0.029 | n/a | n/a | 11.4 | n/a | n/a | n/a | 89.2 | 101 | 212 | 3.33 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/5/2009 | 6.7 | -40.0 | 1.2 | < 0.01 | n/a | n/a | 4.89 | n/a | n/a | n/a | 13.1 | 136 | 158 | 0.916 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/4/2010 | 6.6 | 144 | 8.6 | 0.033 | n/a | n/a | 1.66 | n/a | n/a | n/a | 14.8 | 19.9 | 57 | 9.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 6.8 | -64.0 | 0.0 | < 0.01 | n/a | n/a | 5.04 | n/a | n/a | n/a | 15.8 | 140 | 130 | 0.519 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 6.0 | -55.0 | 0.3 | < 0.03 | n/a | n/a | 4.83 | n/a | n/a | n/a | 14.3 | 144 | 144 | 0.338 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2011 | 6.7 | -50.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 11.7 | 143 | 142 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/17/2012 | 6.7 | -62.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 9.5 | 141 | 150 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/22/2012 | 6.7 | -7.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 9.5 | 142 | 139 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/8/2013 | 7.2 | -146 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 21.9 | 92.9 | 160 | 3.68 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.6 | -75.0 | 0.1 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 3.42 | 121 | 144 | 1.25(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 7.0 | 83.4 | 0.9 | 0.134 | 2.82 | n/a | 1.48 | n/a | < 0.5 | n/a | 57.8 | 104 | 190 | 2.3 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/7/2014 | 6.7 | -58.0 | 0.4 | < 0.03 | 2.73 | n/a | 9.5 | n/a | 2 | 7.5 | 1.54 | 128 | 156 | 0.448 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | Floode | ed below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 11/13/2005 | 6.0 | 126 | 0.4 | < 0.3 | 2.01 | n/a | 8.17 | n/a | 5 | 3.17 | 2.70 | 128 | 101 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/6/2016 | 6.7 | 13 | 1.2 | < 0.03 | 1.98 | n/a | 1.33 | n/a | 0.5 | 0.83 | 30.90 | 105(B) | 155 | 1.24 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/27/2016 | 6.3 | -66 | 0.6 | 0.186 | 2.07 | n/a | 11.4 | n/a | 1.5 | 9.9 | 5.0 | 129 | 145 | 1.02 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2017 | Floode | ed below gra | ade surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/26/2017 | 6.4 | -34 | 0.3 | < 0.05 | 1.88 | n/a | 9.26 | n/a | 4.5 | 4.760 | 16.0 | 128 | 155 | <1 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/25/2018 | 6.3 | -129 | 0.4 | < 0.05 | n/a | n/a | 1.64 | n/a | 0.5 | 1.140 | 28.0 | 106 | 144 | 1.15 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | рН | Oxygen Reduction Potential (ORP) | Dissolved Oxygen (DO) | Nitrate-Nitrite as N | Total Manganese | Dissolved Manganese | Total Iron | Dissolved Iron | Field Determined Ferrous Iron (Fe2+) | Ferric Iron (Fe3+) | Sulfate | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | Ethane | Ethene |
|------|------------------------|------------|----------------------------------|-----------------------|----------------------|-----------------|---------------------|------------|----------------|---|--------------------|-----------|------------|-----------------------------|----------------------|----------------|--------------------|--------------------|-------------|--------------|--------------|
| ID | Date | (SU) | (mVs) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (mg/L) | (µg/L) | (µg/L) | (μg/L) | (mg/L) | (mg/L) | (mg/L) |
| RW-7 | | | | | | | | | | | | | | | | | | | | | |
| | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 12.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 160 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 118 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 18.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 9.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 10 21 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/21/2006 10/5/2006 | n/a 6.8 | n/a -71.6 | n/a 10.8 | n/a <0.05 | n/a | n/a | n/a 5.6 | n/a | n/a | n/a | n/a 18 | n/a 110 | n/a 490 | 2.1 | n/a | n/a | n/a | n/a <0.1 | n/a <0.02 | n/a <0.01 |
| | 12/20/2006 | 6.6 | -71.6 -95.2 | 0.9 | < 0.05 | n/a n/a | n/a n/a | 13 | n/a n/a | n/a n/a | n/a n/a | 13 | 100 | 180 | 3.9 | n/a n/a | n/a n/a | n/a n/a | 0.5 | <0.02 | < 0.01 |
| | 3/22/2007 | 6.7 | -93.2 | 0.5 | < 0.05 | n/a | n/a | 10 | n/a | n/a | n/a | 27 | 130 | 290 | 3.4 | n/a | n/a | n/a | 4.9 | < 0.02 | <0.01 |
| | 10/8/2008 | 6.4 | 27.4 | 1.2 | 0.052 | n/a | n/a | 0.575 | n/a | n/a | n/a | 10.3 | 4.52 | 75.6 | 9.44 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/22/2009 | 6.7 | -117 | 2.8 | 0.014 | n/a | n/a | 9.62 | n/a | n/a | n/a | 69 | 0.15 | 227 | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/5/2009 | 7.1 | -60.0 | 0.8 | < 0.01 | n/a | n/a | 0.699 | n/a | n/a | n/a | 53.7 | 40.5 | 175 | 1.17 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 7.0 | -51.0 | 0.7 | < 0.01 | n/a | n/a | 2.92 | n/a | n/a | n/a | 26 | 41 | 98 | 7.82 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/11/2010 | 7.0 | -114 | 0.0 | < 0.01 | n/a | n/a | 5.51 | n/a | n/a | n/a | 2.65 | 112 | 188 | 4.69 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 6.2 | -42.0 | 0.4 | < 0.03 | n/a | n/a | 2.35 | n/a | n/a | n/a | 72.6 | 56.8 | 120 | 1.56 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2011 | 6.9 | -72.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 26.7 | 57.3 | 140 | 2.57 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/17/2012 | 7.1 | -22.0 | 0.0 | 0.091 | n/a | n/a | n/a | n/a | n/a | n/a | 46.7 | 79.9 | 201 | 2.07 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/22/2012 | 7.1 | 73.0 | 0.0 | 7.35 | n/a | n/a | n/a | n/a | n/a | n/a | 48.3 | 34.4 | 112 | 2.61 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/8/2013 | 7.2 | -126 | 1.9 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 18.2 | 119 | 232 | 1.96 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.6 | -74.0 | 0.2 | < 0.15 | n/a | n/a | n/a | n/a | n/a | n/a | 22.8 | 101 | 216 | 3.1(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 6.9 | -86.0 | 0.4 | < 0.03 | 1.89 | n/a | 4.93 | n/a | 2.5 | 2.43 | 49.6 | 93.4 | 222 | 0.81 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.8 | -75.0 | 0.3 | < 0.03 | 0.82 | n/a | 3.92 | n/a | 2.5 | 1.42 | 23.8 | 44.3 | 164 | 3.12 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | Floode | ed below gra | de surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 11/13/2015 | 6.5 | 197 | 0.3 | 0.037 | 0.218 | n/a | 0.459 | n/a | < 0.5 | n/a | 34.1 | 22.3 | 114 | 4.03 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | Floode | ed below gra | de surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/28/2016 | 6.7 | -121.8 | 0.2 | < 0.15 | 0.395 | n/a | 3.15 | n/a | 1.5 | 1.65 | 17 | 25.6 | 154 | 4.74 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/24/2017 | Floode | ed below gra | de surface | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |
| | 10/26/2017 | 6.7 | -91.7 | 0.3 | < 0.05 | 1.05 | n/a | 3.1 | n/a | 1.5 | 1.6 | 5.62 | 48.1 | 173 | 5.86 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/25/2018 | 6.8 | -123.0 | 0.2 | 0.0734 | n/a | n/a | 5.8 | n/a | 2.5 | 3.3 | 6.31 | 130 | 263 | 1.34 | <2 | <2 | <2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Ha (SU) | Oxygen Reduction Potential (ORP) | mg Dissolved Oxygen (DO) | (mg/L) Nitrate-Nitrite as N | (E) Total Manganese | (JZ) Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous | m)/Ferric Iron (Fe3+) | Sulfate (mg/L) | (mg/L) | Total Alkalinity [as CaCO3] | (Mg) Total Organic Carbon | π 2-Chlorophenol | ਸੰਤੇ ਇੱ 2,6-Dichlorophenol | க் 7 2,4-Dichlorophenol | Methane (mg/L) | Ethane (JZ) | Ethene (mg/L) |
|------------|------------------|---------|--------------------------------------|--------------------------|--------------------------------|---------------------|--------------------------|----------|--------|--------------------------|-----------------------|-------------------|--------|-----------------------------|---------------------------|------------------|-------------------------------|----------------------------|----------------|-------------|---------------|
| RW-8 | Dute | | | | | | | | | _ | | | | | | | | | | | |
| KW-0 | 7/21/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 80 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/29/1999 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 890 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4560 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 25.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/27/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 30.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/30/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/5/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 2.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/21/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/5/2006 | 6.7 | -148 | 1.4 | < 0.05 | n/a | n/a | 160 | n/a | n/a | n/a | 4.3 | 260 | 290 | 6.2 | n/a | n/a | n/a | 1.5 | < 0.02 | < 0.01 |
| | 12/20/2006 | 7.1 | -157 | 0.6 | < 0.05 | n/a | n/a | 61 | n/a | n/a | n/a | 0.42 | 45 | 72 | 19 | n/a | n/a | n/a | 1.3 | < 0.02 | < 0.01 |
| | 3/22/2007 | 7.3 | -224 | 0.3 | < 0.05 | n/a | n/a | 54 | n/a | n/a | n/a | 0.21 | 63 | 120 | 14 | n/a | n/a | n/a | 7.4 | < 0.02 | < 0.02 |
| | 10/8/2008 | 5.8 | 48.6 | 1.6 | 0.069 | n/a | n/a | 0.83 | n/a | n/a | n/a | 3.89 | 3.06 | 9.3 | 13.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 11/5/2009 | 7.8 | -78.0 | 0.0 | < 0.01 | n/a | n/a | 3.21 | n/a | n/a | n/a | 11.3 | 26.1 | 59.2 | 8.27 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/29/2010 | 6.4 | -116 | 0.0 | < 0.01 | n/a | n/a | 3.25 | n/a | n/a | n/a | 5.3 | 18.4 | 38 | 14.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2010 | 6.7 | -108 | 0.0 | < 0.01 | n/a | n/a | 11 | n/a | n/a | n/a | 1.22 | 128 | 137 | 5.52 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/7/2011 | 6.2 | -138 | 0.3 | < 0.03 | n/a | n/a | 8.53 | n/a | n/a | n/a | 2.77 | 190 | 247 | 5.24 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2011 | 6.6 | -85.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.66 | 63.9 | 70 | 10.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/17/2012 | 7.0 | 12.0 | 0.0 | 0.084 | n/a | n/a | n/a | n/a | n/a | n/a | 22.6 | 50.4 | 99.5 | 8.27 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/23/2012 | 6.7 | -65.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 1.71 | 149 | 127 | 6.75 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/8/2013 | 7.1 | 77.0 | 4.7 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 18.1 | 112 | 233 | 1.94 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/2/2013 | 6.2 | -71.0 | 0.2 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.31 | 59.1 | 87.6 | 13.7(B) | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/23/2014 | 7.0 | -102 | 0.4 | < 0.03 | 1.59 | n/a | 6.37 | n/a | 2.5 | 3.87 | 12.6 | 143 | 262 | 1.3 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/8/2014 | 6.6 | -73.0 | 0.3 | 0.044 | 0.464 | n/a | 4.27 | n/a | 2.0 | 2.27 | 0.75 | 37.9 | 57 | 8.28 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/13/2015 | | | | | therefore w | | | | | | | | | | | | | , | | , |
| | 11/13/2015 | 6.5 | 216 | 0.4 | < 0.3 | 1.60 | n/a | 12.1 | n/a | 4.5 | 7.6 | 0.53 | 122 | 141 | 7.81 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | | _ | | - | therefore w | | - | | | | | | | | _ | | _ | , | | , |
| | 10/28/2016 | 6.7 | -107.2 | 0.7 | < 0.15 | 1.92 | n/a | 5.98 | n/a | 2.5 | 3.48 | 2 | 179 | 236 | 2.71 | <2 | <2 | <2 | n/a | n/a | n/a |
| | 4/24/2017 | | | | | therefore w | | - | | | 4.0 | | | ••• | | • | • • | •• | , | | , |
| | 10/26/2017 | 6.8 | -123.1 | 0.1 | < 0.05 | n/a | n/a | n/a | 10.5 | 0.5 | 10 | < 0.5 | 187 | 250 | 5.96 | <20 | <20 | <20 | n/a | n/a | n/a |
| | 4/23/2018 | Floode | d below gra | ade surtace | completion, | therefore w | ell was not | sampled. | | | | | | | | | | | | | |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (SU) | G. Oxygen Reduction Potential (S. (ORP) | (bg) Dissolved Oxygen (DO) | (mg/L) | (T/T Total Manganese | Sm Dissolved Manganese | Total Iron | (mg/L) | Game Field Determined Ferrous (Tron (Fe2+) | (Mg/Z) (Ton (Fe3+) | Sulfate (mg/L) | Chloride | (Total Alkalinity [as CaCO3] | (Total Organic Carbon | (T) 2-Chlorophenol | απ (To 2,6-Dichlorophenol | off (T) 2,4 Dichlorophenol | Methane (mg/L) | Ethane (mg/L) | Ethene (mg/L) |
|------------|------------------|---------|---|----------------------------|--------|----------------------|------------------------|------------|--------|--|--------------------|----------------|----------|------------------------------|-----------------------|--------------------|------------------------------|----------------------------|----------------|---------------|---------------|
| Barnes | | | | | | | | | | | | | | | | | | | | | |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/3/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 5.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 12/18/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/22/2007 | n/a | n/a | n/a | < 0.05 | n/a | n/a | 2.8 | n/a | n/a | n/a | 6.2 | 9.2 | 120 | <1 | n/a | n/a | n/a | 0.43 | < 0.02 | < 0.02 |
| | 5/21/2009 | n/a | n/a | n/a | < 0.01 | n/a | n/a | n/a | n/a | n/a | n/a | 9.19 | 9.81 | 104 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/12/2010 | 6.7 | 23.0 | 14.5 | 0.384 | n/a | n/a | 6.15 | n/a | n/a | n/a | 3.21 | 7.02 | 170 | 1.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/13/2011 | 6.9 | -153 | 0.6 | < 0.03 | n/a | n/a | 1.55 | n/a | n/a | n/a | 3.57 | 7.57 | 145 | 0.232 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/17/2011 | 7.9 | -206 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.96 | 7.88 | 184 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2012 | 6.9 | 127.0 | 0.0 | 0.214 | n/a | n/a | n/a | n/a | n/a | n/a | 11.5 | 6.15 | 58.6 | 4.36 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2013 | 6.8 | -57.0 | 0.2 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 6.09 | 7.29 | 121 | 0.768(B) | < 0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/22/2014 | 6.8 | 77.9 | 0.3 | < 0.03 | 0.147 | n/a | 1.41 | n/a | < 0.5 | n/a | 6.05 | 7.81 | 100 | 0.233 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/6/2014 | 7.7 | -167 | 0.4 | < 0.03 | 0.186 | n/a | 1.8 | n/a | 1 | 0.8 | < 0.2 | 6.82 | 193 | 0.798 | <0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 6.8 | 32.0 | 1.1 | < 0.03 | 0.115 | n/a | 1.34 | n/a | <0.5 | n/a | 4.33 | 6.71 | 117 | 0.653 | <0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |
| | 11/10/2015 | 5.9 | 62.3 | 0.8 | < 0.03 | 0.301 | n/a | 2.82 | n/a | <0.5 | n/a | < 0.5 | 7.15 | 250 | 1.89 | <0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 4/5/2016 | 7.2 | 80 | 1.43 | < 0.03 | 0.0987 | n/a | 3.64 | n/a | <0.5 | n/a | 6.62 | 5.97 | 65.9 | <1 | <0.2 | <0.2 | < 0.2 | n/a | n/a | n/a |
| | 10/25/2016 | 7.4 | -92.4 | 0.6 | 0.042 | n/a | 0.3250 | n/a | 0.27 | 0.5 | n/a | 3 | 5.99 | 137 | 3.39 | < 0.2 | < 0.2 | < 0.2 | n/a | n/a | n/a |

Table E.2. Summary of MNA Constituents, Old Midland Products Superfund Site.

| Well | Sampling | Нф | Oxygen Reduction Potential (ORP) | mi OD) Dissolved Oxygen (DO) | Nitrate-Nitrite as N | (Manganese | m Tr Dissolved Manganese | (mg/L) | (mg/L) | Field Determined Ferrous | Ferric Iron (Fe3+) | Sulfate (mg/L) | Chloride | Total Alkalinity [as CaCO3] | Total Organic Carbon | 2-Chlorophenol | 2,6-Dichlorophenol | 2,4-Dichlorophenol | Methane | (T/bane | Ethene |
|--------|-------------------------|------------|--------------------------------------|---------------------------------|----------------------|--------------|--------------------------------|-------------|------------|--------------------------|--------------------|----------------|--------------|-----------------------------|----------------------|----------------|--------------------|--------------------|------------|------------|------------|
| ID | Date | (SU) | (III V S) | (IIIg/L) | (mg/L) | (Ilig/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (IIIg/L) | (mg/L) | (Ilig/L) | (mg/L) | (mg/L) | (IIIg/L) | (μg/L) | (μg/L) | (μg/L) | (mg/L) | (IIIg/L) | (mg/L) |
| Neeley | | | | | | | | | | | | | | | | | | | | | |
| | 1/25/2000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 1/25/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 7/31/2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <10 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/27/2002 3/3/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/3/2003 8/27/2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/25/2004 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | 2.5 | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| | 8/24/2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3.6 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/22/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1.7 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/23/2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 2/23/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 3 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 8/28/2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 12 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/9/2006 | 6.2 | -40.1 | 1.6 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 4.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 12/18/2006 | 5.4 | 520 | 0.4 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | <1 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 3/22/2007 | 5.8 | 149 | 3.5 | < 0.05 | n/a | n/a | 0.55 | n/a | n/a | n/a | 1.3 | 17 | 12 | <1 | n/a | n/a | n/a | 0.03 | < 0.02 | < 0.02 |
| | 10/22/2008 | n/a | n/a | n/a | 0.115 | n/a | n/a | 0.252 | n/a | n/a | n/a | 1.47 | 17.6 | 29.3 | 0.817 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/21/2009 | n/a | n/a | n/a | 0.13 | n/a | n/a | 0.027 | n/a | n/a | n/a | 4.51 | 10.6 | 19.4 | 2.72 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/4/2010 | 5.6 | 42.0 | 0.0 | < 0.01 | n/a | n/a | 3.86 | n/a | n/a | n/a | 1.24 | 13.2 | 39 | 0.697 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/13/2011 | 5.3 | 122 | 1.8 | 0.579 | n/a | n/a | 0.225 | n/a | n/a | n/a | 1.22 | 16.3 | 9.7 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 4/12/2012 | 6.1 | 99.0 | 0.0 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 1.4 | 13.4 | 23.1 | < 0.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/18/2012 | 6.0 | 121 | 0.0 | 0.14 | n/a | n/a | n/a | n/a | n/a | n/a | 2.46 | 16.2 | 19.3 | 1.02 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 5/2/2013 | 5.8 | 194 | 0.0 | 0.82 | n/a | n/a | n/a | n/a | n/a | n/a | 1.11 | 17.4 | 14.4 | 0.34 | n/a | n/a | n/a | n/a | n/a | n/a |
| | 10/3/2013 | 5.9 | 18.0 | 0.2 | < 0.03 | n/a | n/a | n/a | n/a | n/a | n/a | 0.82 | 18.1 | 36.1 | 0.94(B) | <0.2 | < 0.2 | <0.2 | n/a | n/a | n/a |
| | 4/21/2014 | 5.4 | 240 | 0.3 | 0.582 | 0.125 | n/a | 0.0732 | n/a | < 0.5 | n/a | 1.03 | 17.1 | 15 | 0.321 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 10/6/2014 | 5.5 | -93 | 0.4 | < 0.03 | 0.16 | n/a | 4.08 | n/a | 1.5 | 2.58 | 0.9 | 15.4 | 22.2 | 0.87 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/15/2015 | 5.9 | 43 | 0.9 | < 0.03 | 0.978 | n/a | 5.00 | n/a | 2.0 | 3 | 1.07 | 15.2 | 30.2 | 1.19 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 11/10/2015 | 7.2 | -193 | 0.3 | 0.176 | 0.606 | n/a | 1.07 | n/a | 2.5 | n/a | 2.69 | 15.4 | 18.4 | 1.05 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/5/2016 10/25/2016 | 6.8 | 111 23.8 | 2.9 | 0.0900 | 0.0424 0.109 | n/a | 0.820 | n/a | <0.5 0.5 | n/a 3.53 | 1.45 2 | 10.2 | 71.9 | <1 1.85 | <0.2 <0.2 | <0.2 <0.2 | <0.2 <0.2 | n/a | n/a | n/a |
| | 10/25/2016 4/27/2017 | 6.9 7.0 | 23.8 16.7 | 0.4 0.2 | 0.202 <0.5 | 0.109 | n/a n/a | 4.0 14.4 | n/a n/a | 0.5 3.0 | 3.53 11.4 | 0.61 | 10.7 10.7 | 64.1 <60 | 1.85 <1 | <0.2 | <0.2 | <0.2 | n/a n/a | n/a n/a | n/a n/a |
| | 10/25/2017 | 6.7 | -24 | 0.4 | <0.25 | 0.440 | n/a | 12.0 | n/a | < 0.5 | n/a | 3.31 | 11.8 | 103 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| | 4/26/2018 | 6.6 | -24 -65.1 | 0.4 | < 0.25 | n/a | n/a | 12.0 | n/a | 1.5 | 10.5 | 2.27 | 18.7 | 90.5 | <1 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |
| P-5S | 7/20/2010 | 0.0 | -03.1 | 0.5 | \0.UJ | 11/ a | 11/41 | 14.0 | 11/ CL | 1.3 | 10.5 | 4.41 | 10.7 | 70.5 | \1 | NO.2 | NO.2 | NO.2 | 11/ α | и а | 11/α |
| 1 35 | 4/16/2015 | 6.0 | 139 | 2.7 | < 0.03 | 0.015 | n/a | < 0.020 | n/a | <0.5 | < 0.02 | 1.19 | 5.01 | 49 | 0.248 | <0.2 | <0.2 | <0.2 | n/a | n/a | n/a |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | 蜇 | > | Specific Conductance |
|------------|------------------|-----|-----------------|-------------|-------------------------|
| | | | bera | igit | ific Iuct |
| ****-11 | C | Hd | (C) Temperature | Turbidity | Specific |
| Well ID | Sampling Date | su) | (C) | (NTU) | (mS/cm) |
| MW-1S | | | | | |
| | 9/27/2006 | 5.4 | 20.4 | 6 | 0.168 |
| | 12/18/2006 | 5.2 | 18.9 | 1 | 0.170 |
| | 3/20/2007 | 5.6 | 17.2 | 1 | 0.167 |
| | 10/1/2008 | 5.6 | 21.3 | 0 | 0.177 |
| | 5/18/2009 | 5.5 | 16.5 | 5 | 0.186 |
| | 11/4/2009 | 5.5 | 19.8 | 0 | 0.184 |
| | 4/29/2010 | 6.1 | 14.9 | 0 | 0.199 |
| | 10/5/2010 | 6.0 | 20.5 | 35 | 0.190 |
| | 4/4/2011 | 5.4 | 13.9 | < 0.02 | 0.197 |
| | 10/11/2011 | 5.8 | 20.8 | 4 | 0.211 |
| | 4/10/2012 | 5.6 | 16.6 | < 0.02 | 0.131 |
| | 10/16/2012 | 5.1 | 19.7 | < 0.02 | 0.159 |
| | 5/2/2013 | 5.8 | 15.6 | < 0.02 | 0.185 |
| | 10/2/2013 | 5.4 | 23.6 | 4 | 0.187 |
| | 4/21/2014 | 5.3 | 15.7 | < 0.02 | 0.184 |
| | 10/7/2014 | 5.2 | 23.8 | 9 | 0.172 |
| | 4/14/2015 | 5.4 | 14.4 | < 0.02 | 0.180 |
| | 11/13/2015 | 6.1 | 15.3 | 6 | 0.184 |
| | 4/6/2016 | 5.8 | 18.8 | 3 | 0.204 |
| | 10/27/2016 | 5.5 | 28.5 | 3 | 0.206 |
| | 4/24/2017 | 5.6 | 26.9 | 2 | 0.191 |
| | 10/24/2017 | 5.5 | 19.2 | 0 | 0.171 |
| | 4/25/2018 | 5.5 | 18.7 | 1 | 0.170 |
| MW-1D | | | | | |
| | 9/27/2006 | 6.7 | 19.5 | 3 | 0.327 |
| | 12/19/2006 | 6.6 | 15.9 | 0 | 0.340 |
| | 3/20/2007 | 6.9 | 17.3 | 0 | 0.326 |
| | 9/30/2008 | 6.7 | 20.0 | 0 | 0.338 |
| | 5/18/2009 | 6.8 | 18.1 | 1 | 0.336 |
| | 11/5/2009 | 7.2 | 17.5 | 2 | 0.299 |
| | 4/28/2010 | 1.0 | 18.1 | 0 | 0.343 |
| | 10/5/2010 | 7.2 | 21.5 | < 0.02 | 0.307 |
| | 4/4/2011 | 6.6 | 14.3 | < 0.02 | 0.347 |
| | 10/11/2011 | 7.2 | 21.2 | < 0.02 | 0.355 |
| | 4/10/2012 | 7.1 | 17.7 | 4 | 0.241 |
| | 10/16/2012 | 7.0 | 21.0 | < 0.02 | 0.347 |
| | 5/2/2013 | 7.4 | 18.9 | < 0.02 | 0.345 |
| | 9/30/2013 | 7.4 | 21.8 | 3 | 0.350 |
| | 4/21/2014 | 6.9 | 16.3 | < 0.02 | 0.342 |
| | 10/7/2014 | 6.8 | 22.7 | 4 | 0.347 |
| | 4/14/2015 | 6.7 | 16.0 | 2 | 0.317 |
| | 11/13/2015 | 7.5 | 11.5 | 2 | 0.344 |
| | 4/6/2016 | 7.4 | 21.5 | 5 | 0.361 |
| | 10/27/2016 | 7.4 | 29.2 | 5 | 0.366 |
| | 4/24/2017 | 7.1 | 26.1 | 3 | 0.306 |
| | 10/27/2017 | 7.2 | 19.4 | 3 1 | 0.326 |
| | 4/25/2018 | 7.0 | 19.4 | 1 | 0.288 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (3) Temperature | ž; | Specific |
|-------|------------|------|-----------------|-----------|----------|
| | | | nper | Turbidity | cific |
| Well | Sampling | Hd | Ten | Tur | Specific |
| ID | Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-3S | | | | | |
| | 10/9/2006 | 5.9 | 19.6 | 2 | 1.10 |
| | 12/21/2006 | 5.8 | 18.3 | 3 | 1.02 |
| | 3/21/2007 | 6.0 | 18.4 | 0 | 1.72 |
| | 5/20/2009 | 5.8 | 17.7 | 3 | 2.66 |
| | 11/4/2009 | 5.9 | 19.7 | 0 | 2.42 |
| | 4/29/2010 | 6.2 | 16.0 | 0 | 3.32 |
| | 10/11/2010 | 6.1 | 19.0 | < 0.02 | 2.21 |
| | 4/13/2011 | 5.4 | 17.4 | < 0.02 | 2.10 |
| | 10/18/2011 | 6.2 | 18.9 | < 0.02 | 2.04 |
| | 4/19/2012 | 6.0 | 18.6 | < 0.02 | 2.76 |
| | 10/23/2012 | 6.1 | 22.6 | < 0.02 | 2.23 |
| | 5/6/2013 | 6.8 | 21.2 | < 0.02 | 2.61 |
| | 10/3/2013 | 5.9 | 23.2 | 5 | 2.75 |
| | 4/23/2014 | 6.0 | 19.3 | 3 | 3.11 |
| | 10/7/2014 | 5.9 | 25.4 | 9 | 3.25 |
| | 4/15/2015 | 6.0 | 15.0 | 1 | 3.26 |
| | 11/13/2015 | 5.9 | 22.3 | 2 | 3.03 |
| | 4/5/2016 | 6.2 | 19.7 | 3 | 3.619 |
| | 10/28/2016 | 5.8 | 26.3 | 5 | 2.888 |
| | 4/27/2017 | 6.0 | 13.4 | 10 | 3.858 |
| | 10/26/2017 | 6.0 | 12.9 | 2 | 3.343 |
| | 4/26/2018 | 6.2 | 14.7 | 3 | 3.456 |
| MW-3D | | | | | |
| | 10/9/2006 | 6.4 | 19.6 | 2 | 0.855 |
| | 12/21/2006 | 6.5 | 18.3 | 3 | 0.574 |
| | 3/21/2007 | 6.9 | 16.8 | 0 | 0.656 |
| | 5/20/2009 | 6.7 | 17.4 | 1 | 0.642 |
| | 11/4/2009 | 6.6 | 18.1 | 3 | 0.569 |
| | 5/4/2010 | 6.8 | 17.9 | 4 | 0.650 |
| | 10/12/2010 | 6.8 | 22.5 | < 0.02 | 0.575 |
| | 4/13/2011 | 5.9 | 17.8 | < 0.02 | 0.673 |
| | 10/18/2011 | 6.8 | 18.3 | < 0.02 | 0.696 |
| | 4/19/2012 | 6.8 | 19.0 | < 0.02 | 0.588 |
| | 10/23/2012 | 6.8 | 20.4 | < 0.02 | 0.718 |
| | 5/6/2013 | 7.1 | 17.3 | < 0.02 | 0.751 |
| | 10/3/2013 | 6.6 | 22.5 | 2 | 0.731 |
| | 4/23/2014 | 6.8 | 20.9 | 5 | 0.703 |
| | 10/7/2014 | 6.6 | 21.1 | 10 | 0.730 |
| | 4/15/2015 | 6.7 | 17.4 | 1 | 0.626 |
| | 11/13/2015 | 6.6 | `9.3 | 3 | 0.711 |
| | 4/5/2016 | 7.0 | 17.5 | 4 | 0.686 |
| | 10/26/2016 | 6.4 | 20.2 | 3 | 0.641 |
| | 4/27/2017 | 6.7 | 16.4 | 9 | 0.702 |
| | 10/26/2017 | 6.7 | 17.6 | 7 | 0.666 |
| | 4/26/2018 | 6.8 | 15.4 | 2 | 0.684 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hđ (su) | O.Temperature | (ntv) (ntv) | Specific (m/Samce) (m/Samce) |
|------------|------------------|------------|---------------|----------------|------------------------------------|
| MW-5S | | | | | |
| | 10/5/2006 | 6.3 | 20.1 | 15 | 0.539 |
| | 12/20/2006 | 6.4 | 16.3 | 63 | 0.583 |
| | 3/20/2007 | 6.5 | 16.6 | 0 | 0.518 |
| | 9/25/2008 | 6.3 | 20.1 | 0 | 0.533 |
| | 5/26/2009 | 6.8 | 16.2 | 4 | 0.549 |
| | 11/10/2009 | 6.4 | 20.0 | 36 | 0.427 |
| | 4/28/2010 | 4.1 | 18.4 | 2 | 0.535 |
| | 10/7/2010 | 6.8 | 25.4 | < 0.02 | 0.522 |
| | 4/6/2011 | 6.5 | 16.0 | 1 | 0.552 |
| | 10/11/2011 | 6.5 | 21.0 | 1 | 0.554 |
| | 4/10/2012 | 6.6 | 17.7 | < 0.02 | 0.367 |
| | 10/16/2012 | 6.5 | 20.4 | < 0.02 | 0.562 |
| | 4/30/2013 | 7.1 | 20.8 | 1 | 0.480 |
| | 10/1/2013 | 6.5 | 21.2 | 34 | 0.553 |
| | 4/23/2014 | 6.3 | 16.8 | 9 | 0.490 |
| | 10/7/2014 | 6.4 | 19.9 | 6 | 0.560 |
| | 4/16/2015 | 6.5 | 14.5 | 6 | 0.469 |
| | 11/11/2015 | 6.5 | 19.6 | 10 | 0.572 |
| | 4/4/2016 | 6.6 | 17.3 | 6 | 0.469 |
| | 10/27/2016 | 6.5 | 22.3 | 31 | 0.558 |
| | 4/27/2017 | 6.5 | 17.9 | 7 | 0.482 |
| | 10/24/2017 | 6.6 | 19.5 | 1 | 0.466 |
| | 4/25/2018 | 6.5 | 15.4 | 1 | 0.441 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (3) Temperature | * | Specific |
|-------|------------|------------|-----------------|----------------|------------------|
| | | | pera | idit | ific |
| Well | Sampling | Hd | [em] | ji. | Specific (mS/Sm) |
| ID | Date | (su) | (C) | (nla) (nla) | (mS/cm) |
| MW-8S | | | | | |
| | 10/9/2006 | 5.6 | 19.6 | 14 | 0.535 |
| | 12/19/2006 | 5.8 | 17.8 | 0 | 0.604 |
| | 3/22/2007 | 5.8 | 16.7 | 0 | 0.683 |
| | 10/17/2008 | 5.5 | 19.7 | 0 | 0.671 |
| | 5/20/2009 | 5.7 | 15.7 | 5 | 0.813 |
| | 11/3/2009 | 5.7 | 18.5 | 0 | 1.010 |
| | 4/28/2010 | 4.5 | 15.6 | 0 | 1.010 |
| | 10/5/2010 | 5.9 | 23.8 | < 0.02 | 0.864 |
| | 4/5/2011 | 5.1 | 14.8 | 3 | 1.050 |
| | 10/11/2011 | 5.8 | 19.7 | 4 | 0.906 |
| | 4/11/2012 | 5.8 | 14.9 | < 0.02 | 0.725 |
| | 10/16/2012 | 5.6 | 20.6 | < 0.02 | 0.963 |
| | 5/7/2013 | 6.2 | 21.6 | 4 | 0.942 |
| | 9/30/2013 | 5.6 | 21.9 | 5 | 0.928 |
| | 4/23/2014 | 5.8 | 17.6 | 15 | 0.980 |
| | 10/7/2014 | 5.7 | 19.2 | 9 | 0.948 |
| | 4/15/2015 | 5.6 | 15.1 | 18 | 1.030 |
| | 11/11/2015 | 5.5 | 19.1 | 19 | 0.952 |
| | 4/6/2016 | 5.8 | 16.7 | 3 | 0.927 |
| | 10/27/2016 | 5.8 | 24.5 | 14 | 0.978 |
| | 4/27/2017 | 5.7 | 19.3 | 9 | 0.972 |
| | 10/26/2017 | 5.7 | 18.9 | 2 | 0.746 |
| | 4/26/2018 | 5.6 | 16.0 | 2 | 0.888 |
| MW-8D | | | | | |
| | 10/10/2006 | 6.9 | 17.4 | 2 | 0.379 |
| | 12/19/2006 | 7.0 | 16.8 | -4 | 0.397 |
| | 3/22/2007 | 7.1 | 17.6 | 0 | 0.401 |
| | 9/26/2008 | 7.0 | 18.5 | 2 | 0.390 |
| | 5/21/2009 | 7.5 | 16.7 | 5 | 0.454 |
| | 11/4/2009 | 7.1 | 17.6 | 5 | 0.363 |
| | 4/29/2010 | 3.0 | 17.4 | 0 | 0.402 |
| | 10/5/2010 | 7.6 | 17.9 | < 0.02 | 0.389 |
| | 4/5/2011 | 6.9 | 15.5 | < 0.02 | 0.429 |
| | 10/11/2011 | 7.7 | 20.0 | 1 | 0.436 |
| | 4/11/2012 | 7.3 | 16.4 | < 0.02 | 0.307 |
| | 10/16/2012 | 7.4 | 19.5 | < 0.02 | 0.455 |
| | 5/7/2013 | 7.8 | 21.9 | < 0.02 | 0.425 |
| | 9/30/2013 | 7.4 | 22.2 | 6 | 0.449 |
| | 4/23/2014 | 7.4 | 18.0 | 12 | 0.452 |
| | 10/7/2014 | 7.7 | 19.4 | 13 | 0.459 |
| | 4/14/2015 | 7.5 | 16.5 | 6 | 0.414 |
| | 11/12/2015 | 8.2 | 17.3 | 7 | 0.404 |
| | 4/6/2016 | 7.5 | 18.5 | 3 | 0.470 |
| | 10/27/2016 | 7.5 | 18.8 | 5 | 0.485 |
| | 4/27/2017 | 7.8 | 21.5 | 13 | 0.800 |
| | 10/26/2017 | 7.5 | 16.7 | 2 | 0.477 |
| | 4/26/2018 | 7.5 7.5 | 16.7 | 7 | 0.382 |
| | 4/20/2018 | 1.3 | 10.0 | / | 0.364 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (3) Temperature | Ŕ | Specific Conductance |
|-------------|------------------|------|-----------------|---------|-------------------------|
| | | | per | iĝi | linct |
| *** 11 | g 11 | Hd | em] | ir f | Specific |
| Well ID | Sampling Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-9S | Date | (| (-) | (/ | (, |
| 141 44 - 25 | 10/10/2006 | 5.9 | 18.3 | 66 | 0.994 |
| | 12/21/2006 | 5.9 | 16.1 | 281 | 0.749 |
| | 3/19/2007 | 6.2 | 14.0 | 12 | 0.902 |
| | 10/14/2008 | 6.4 | 19.7 | 425 | 0.687 |
| | 5/26/2009 | 6.6 | 15.6 | 7 | 0.772 |
| | 11/10/2009 | 6.4 | 18.7 | 0 | 0.346 |
| | 4/28/2010 | 6.3 | 17.5 | 384 | 0.894 |
| | 10/5/2010 | 6.5 | 23.1 | 2 | 0.794 |
| | 4/5/2011 | 5.4 | 16.8 | < 0.02 | 0.720 |
| | 10/13/2011 | 6.3 | 18.1 | 566 | 0.703 |
| | 4/12/2012 | 6.5 | 15.1 | 146 | 0.842 |
| | 10/18/2012 | 6.2 | 18.7 | 800 | 0.999 |
| | 4/30/2013 | 6.9 | 23.4 | 79 | 1.100 |
| | 10/3/2013 | 6.0 | 19.8 | 1000 | 1.000 |
| | 4/21/2014 | 6.3 | 15.0 | 64 | 1.265 |
| | 10/7/2014 | 5.8 | 18.3 | 48 | 0.932 |
| | 4/14/2015 | 6.2 | 13.8 | 88 | 1.130 |
| | 11/13/2015 | 5.4 | 11.4 | 122 | 0.086 |
| | 4/6/2016 | 6.2 | 24.2 | 110 | 1.082 |
| | 10/26/2016 | 6.0 | 16.6 | 55 | 0.947 |
| | 4/25/2017 | 6.0 | 22.7 | 19 | 0.915 |
| | 10/24/2017 | 5.8 | 16.9 | 10 | 0.686 |
| | 4/24/2018 | 6.2 | 25.1 | 39 | 0.825 |
| MW-9D | | | | | |
| | 10/10/2006 | 6.1 | 17.0 | 1 | 0.755 |
| | 12/21/2006 | 6.2 | 16.5 | 6 | 0.793 |
| | 3/19/2007 | 6.4 | 16.2 | 2 | 0.701 |
| | 10/14/2008 | 6.4 | 17.6 | 0 | 0.665 |
| | 5/22/2009 | 6.5 | 16.7 | 8 | 0.684 |
| | 11/10/2009 | 6.8 | 17.4 | 22 | 0.714 |
| | 4/29/2010 | 6.3 | 18.1 | 12 | 0.665 |
| | 10/4/2010 | 6.7 | 18.4 | 1 | 0.581 |
| | 4/5/2011 | 5.7 | 16.5 | < 0.02 | 0.676 |
| | 10/12/2011 | 6.7 | 17.6 | 4 | 0.706 |
| | 4/12/2012 | 6.7 | 15.8 | 3 | 0.544 |
| | 10/17/2012 | 6.7 | 18.0 | < 0.02 | 0.738 |
| | 4/30/2013 | 6.9 | 21.9 | 11 | 0.698 |
| | 10/1/2013 | 6.5 | 21.2 | 11 | 0.727 |
| | 4/22/2014 | 6.4 | 16.6 | 9 | 0.744 |
| | 10/7/2014 | 6.5 | 19.3 | 15 | 0.690 |
| | 4/15/2015 | 6.5 | 14.5 | 3 | 0.717 |
| | 11/11/2015 | 6.5 | 18.2 | 5 | 0.696 |
| | 4/4/2016 | 6.5 | 19.3 | 6 | 0.661 |
| | 10/26/2016 | 6.6 | 19.1 | 6 | 0.704 |
| | 4/25/2017 | 6.7 | 19.2 | 15 | 0.696 |
| | 10/24/2017 | 6.6 | 18.1 | 2 | 0.572 |
| | 4/24/2018 | 6.6 | 23.3 | 6 | 0.670 |

 $Table\ E.3.\ Summary\ of\ Field\ Parameters,\ Old\ Midland\ Products\ Superfund\ Site.$

| | | | (3) Temperature | ţ. | Specific Conductance |
|--------|------------|------|-----------------|-----------|-------------------------|
| | | | per | bidi | iffic |
| Well | Sampling | Hd | [em | Turbidity | Specific |
| ID | Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-10S | | | | | |
| | 10/10/2006 | 6.2 | 19.1 | 5 | 0.555 |
| | 12/21/2006 | 6.4 | 16.2 | 16 | 0.588 |
| | 3/19/2007 | 6.4 | 16.5 | 4 | 0.542 |
| | 10/6/2008 | 6.1 | 18.6 | 1 | 0.743 |
| | 5/21/2009 | 6.3 | 16.3 | 2 | 0.916 |
| | 11/9/2009 | 6.5 | 17.0 | 26 | 0.847 |
| | 4/28/2010 | 6.1 | 14.1 | 0 | 1.110 |
| | 10/6/2010 | 6.6 | 24.4 | 2 | 0.765 |
| | 4/5/2011 | 6.2 | 16.4 | 2 | 1.130 |
| | 10/12/2011 | 6.4 | 19.1 | < 0.02 | 1.220 |
| | 4/11/2012 | 6.3 | 15.6 | < 0.02 | 0.967 |
| | 10/17/2012 | 6.3 | 19.2 | < 0.02 | 1.430 |
| | 5/5/2013 | 6.5 | 13.8 | < 0.02 | 1.350 |
| | 10/1/2013 | 6.0 | 21.7 | < 0.02 | 1.230 |
| | 4/22/2014 | 6.1 | 14.9 | 6 | 1.353 |
| | 10/7/2014 | 6.2 | 19.6 | 10 | 1.417 |
| | 4/14/2015 | 6.2 | 14.6 | 10 | 1.360 |
| | 11/12/2015 | 6.3 | 17.6 | 1 | 1.110 |
| | 10/25/2016 | 6.0 | 25.1 | 14 | 1.486 |
| | 4/25/2017 | 6.2 | 18.8 | 23 | 1.479 |
| | 10/25/2017 | 6.0 | 19.7 | 1 | 1.556 |
| | 4/24/2018 | 6.2 | 20.7 | 4 | 1.264 |
| MW-10D | | | | | |
| | 10/11/2006 | 6.9 | 17.2 | 4 | 0.634 |
| | 12/21/2006 | 7.1 | 16.2 | 44 | 0.661 |
| | 3/19/2007 | 7.3 | 16.3 | 10 | 0.548 |
| | 10/6/2008 | 7.1 | 18.1 | 0 | 0.568 |
| | 5/21/2009 | 7.4 | 16.5 | 1 | 0.565 |
| | 11/9/2009 | 7.3 | 16.8 | 103 | 0.572 |
| | 4/29/2010 | 1.8 | 19.8 | 0 | 0.589 |
| | 10/6/2010 | 7.7 | 19.1 | < 0.02 | 0.595 |
| | 4/5/2011 | 6.3 | 17.8 | 3 | 0.567 |
| | 10/12/2011 | 7.5 | 18.2 | < 0.02 | 0.594 |
| | 4/11/2012 | 7.6 | 16.1 | < 0.02 | 0.432 |
| | 10/17/2012 | 7.5 | 18.3 | < 0.02 | 0.600 |
| | 5/5/2013 | 7.8 | 17.4 | < 0.02 | 0.585 |
| | 10/1/2013 | 7.2 | 22.4 | 1 | 0.518 |
| | 4/22/2014 | 7.2 | 15.4 | 7 | 0.590 |
| | 10/7/2014 | 7.5 | 20.2 | 13 | 0.614 |
| | 4/15/2015 | 7.1 | 14.9 | 5 | 0.583 |
| | 11/12/2015 | 7.2 | 17.8 | 8 | 0.410 |
| | 4/5/2016 | 7.1 | 15.8 | 8 | 0.567 |
| | 10/25/2016 | 7.1 | 22.9 | 7 | 0.580 |
| | 4/25/2017 | 7.4 | 22.6 | 4 | 0.596 |
| | 10/25/2017 | 7.3 | 20.2 | 5 | 0.618 |
| | 4/24/2018 | 7.3 | 22.4 | 15 | 0.501 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hd (su) | (C) Temperature | (DLZ) (Urbidity | Specific |
|------------|------------------|------------------------|------------------------|--------------------------|----------|
| MW-12S | | | | | |
| | 10/11/2006 | 5.8 | 20.4 | 2 | 0.098 |
| | 12/21/2006 | 6.1 | 17.6 | 4 | 0.204 |
| | 3/20/2007 | 6.3 | 16.7 | 64 | 0.162 |
| | 10/7/2010 | 6.2 | 27.0 | < 0.02 | 0.092 |
| | 10/11/2011 | 6.1 | 22.5 | < 0.02 | 0.117 |
| | 10/17/2012 | 6.1 | 20.4 | < 0.02 | 0.116 |
| | 5/7/2013 | 6.3 | 16.9 | < 0.02 | 0.125 |
| | 10/1/2013 | 5.9 | 24.0 | 2 | 0.107 |
| | 4/23/2014 | Flooded below grade su | urface completion, the | refore well was not samp | pled. |
| | 10/7/2014 | 5.6 | 21.2 | 11 | 0.111 |
| | 4/13/2015 | Flooded below grade su | urface completion, the | refore well was not samp | pled. |
| | 11/11/2015 | 5.4 | 18.4 | 9.3 | 109 |
| | 4/6/2016 | 6.0 | 16.5 | 2.9 | 0.168 |
| | 10/26/2016 | 6.3 | 22.5 | 22.0 | 0.148 |
| | 4/27/2017 | 6.6 | 16.7 | 0.8 | 0.261 |
| | 10/27/2017 | 6.1 | 18.1 | 5.2 | 0.111 |
| | 4/24/2018 | 5.6 | 15.4 | 2.6 | 0.095 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (3) Temperature | Ŕ | Specific |
|--------|------------|------|---|-----------|----------|
| | | | pera | į | ific |
| Well | Sampling | Н | Jem | Turbidity | Specific |
| ID | Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-16S | | | | | |
| | 10/12/2006 | 6.8 | 17.6 | 2 | 1.513 |
| | 12/19/2006 | 6.9 | 15.7 | 20 | 1.310 |
| | 3/22/2007 | 6.6 | 17.3 | 12 | 1.105 |
| | 9/30/2008 | 6.4 | 19.2 | 0 | 1.259 |
| | 5/19/2009 | 6.6 | 17.0 | 4 | 1.131 |
| | 11/2/2009 | 6.3 | 18.1 | 0 | 0.758 |
| | 4/28/2010 | 6.5 | 19.2 | 8 | 1.080 |
| | 10/6/2010 | 6.8 | 21.7 | < 0.02 | 0.950 |
| | 4/6/2011 | 5.9 | 18.8 | < 0.02 | 1.030 |
| | 10/16/2011 | 6.8 | 19.9 | < 0.02 | 1.300 |
| | 4/16/2012 | 6.6 | 17.8 | 1 | 0.772 |
| | 10/21/2012 | 6.9 | 20.7 | < 0.02 | 1.310 |
| | 5/1/2013 | 7.2 | 21.1 | 4 | 0.866 |
| | 10/1/2013 | 6.7 | 21.5 | 17 | 1.250 |
| | 4/21/2014 | 6.6 | 16.5 | 11 | 0.969 |
| | 10/7/2014 | 6.7 | 19.6 | 8 | 0.020 |
| | 4/14/2015 | 6.7 | 15.3 | 6 | 0.986 |
| | 11/11/2015 | 6.8 | 19.1 | 12 | 1.100 |
| | 4/4/2016 | 6.6 | 20.8 | 12 | 0.969 |
| | 10/26/2016 | 6.3 | 19.0 | 4 | 1.064 |
| | 4/25/2017 | 6.7 | 20.1 | 18 | 0.918 |
| | 10/24/2017 | 6.7 | 18.0 | 34 | 0.903 |
| | 4/24/2018 | 6.6 | 17.1 | 9 | 0.917 |
| MW-16D | | | | | |
| | 10/16/2006 | 6.6 | 18.0 | 15 | 1.268 |
| | 12/20/2006 | 6.8 | 15.2 | 191 | 1.314 |
| | 3/21/2007 | 6.7 | 18.4 | 104 | 1.229 |
| | 9/30/2008 | 6.6 | 18.2 | 0 | 0.988 |
| | 5/19/2009 | 6.8 | 17.9 | 2 | 0.965 |
| | 11/3/2009 | 6.6 | 17.5 | 20 | 0.392 |
| | 4/28/2010 | 6.5 | 18.3 | 26 | 0.912 |
| | 10/6/2010 | 7.7 | 18.2 | 3 | 0.966 |
| | 4/6/2011 | 6.6 | 18.0 | < 0.02 | 0.945 |
| | 10/13/2011 | 6.8 | 19.3 | 3 | 0.880 |
| | 4/16/2012 | 6.8 | 18.0 | 1 | 0.622 |
| | 10/21/2012 | 7.0 | 20.3 | < 0.02 | 0.878 |
| | 5/1/2013 | 7.4 | 22.5 | 3 | 0.872 |
| | 10/2/2013 | 7.4 | 20.3 | 65 | 0.847 |
| | 4/21/2014 | 7.4 | 16.3 | 22 | 0.822 |
| | 10/7/2014 | 7.0 | 20.9 | 7 | 0.768 |
| | 4/14/2015 | 7.3 | 14.6 | 10 | 0.725 |
| | 11/11/2015 | 7.2 | 18.6 | 6 | 0.670 |
| | 4/4/2016 | 6.8 | 20.4 | 13 | 0.668 |
| | 10/25/2016 | 6.6 | 17.9 | 6 | 0.639 |
| | 4/25/2017 | 7.7 | 17.7 | 40 | 0.644 |
| | 10/24/2017 | 8.2 | 17.5 | 37 | 0.521 |
| | 4/24/2018 | 7.3 | 18.5 | 16 | 0.596 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hđ (su) | (C) Temperature | (DTU) (ATUT bidity | Specific SC Conductance |
|------------|------------------|------------|-----------------|-----------------------|----------------------------|
| MW-17S | | | | | |
| | 10/12/2006 | 5.7 | 18.5 | 2 | 0.138 |
| | 12/18/2006 | 5.4 | 18.7 | 5 | 0.134 |
| | 3/20/2007 | 5.9 | 17.3 | 0 | 0.128 |
| | 9/25/2008 | 5.6 | 19.6 | 0 | 0.125 |
| | 5/20/2009 | 6.0 | 16.2 | 6 | 0.134 |
| | 11/4/2009 | 5.8 | 18.8 | 0 | 0.128 |
| | 5/4/2010 | 5.8 | 16.8 | 2 | 0.130 |
| | 10/11/2010 | 6.0 | 18.1 | < 0.02 | 0.138 |
| | 4/11/2011 | 6.0 | 16.2 | 1 | 0.145 |
| | 10/17/2011 | 6.0 | 19.6 | 2 | 0.156 |
| | 4/12/2012 | 6.0 | 17.6 | 4 | 0.103 |
| | 10/22/2012 | 6.0 | 21.6 | < 0.02 | 0.140 |
| | 5/5/2013 | 6.0 | 20.5 | < 0.02 | 0.560 |
| | 10/2/2013 | 6.0 | 22.8 | 2 | 0.150 |
| | 4/22/2014 | 6.0 | 17.0 | 7 | 0.126 |
| | 10/7/2014 | 6.0 | 23.1 | 3 | 0.129 |
| | 4/14/2015 | 6.0 | 17.5 | 1 | 0.118 |
| | 11/11/2015 | 6.0 | 20.0 | 3 | 0.123 |
| | 4/5/2016 | 6.0 | 11.3 | 8 | 0.122 |
| | 10/25/2016 | 6.0 | 20.8 | 3 | 0.132 |
| | 4/27/2017 | 6.0 | 18.5 | 21 | 0.139 |
| | 10/25/2017 | 6.0 | 17.5 | 6 | 0.152 |
| | 4/25/2018 | 6.0 | 14.8 | 13 | 0.117 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (i) Temperature | \$ | Specific Conductance |
|--------|------------|------|-----------------|-----------|-------------------------|
| | | | ber | jigi | iffic |
| Well | Sampling | Н | Lem | Turbidity | Specific |
| ID | Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-18S | | | | | |
| | 10/16/2006 | 6.8 | 19.3 | 20 | 0.351 |
| | 12/19/2006 | 5.9 | 16.2 | 9 | 0.176 |
| | 3/20/2007 | 5.9 | 16.9 | 89 | 0.123 |
| | 5/21/2009 | 6.0 | 16.4 | 3 | 0.158 |
| | 11/4/2009 | 6.0 | 18.7 | 0 | 0.403 |
| | 4/28/2010 | 5.6 | 15.8 | 0 | 0.159 |
| | 10/7/2010 | 6.3 | 21.6 | < 0.02 | 0.559 |
| | 4/6/2011 | 5.7 | 15.4 | < 0.02 | 0.205 |
| | 10/13/2011 | 6.1 | 20.0 | 3 | 0.643 |
| | 4/12/2012 | 6.3 | 16.4 | 22 | 0.267 |
| | 10/18/2012 | 6.6 | 18.3 | < 0.02 | 0.470 |
| | 5/6/2013 | 6.6 | 24.9 | < 0.02 | 0.348 |
| | 10/1/2013 | 6.2 | 21.4 | 45 | 0.591 |
| | 4/22/2014 | 6.0 | 15.8 | 20 | 0.421 |
| | 10/7/2014 | 6.0 | 20.0 | 8 | 0.531 |
| | 4/15/2015 | 5.9 | 15.5 | 10 | 0.261 |
| | 11/12/2015 | 6.1 | 15.6 | 7 | 0.471 |
| | 4/5/2016 | 6.1 | 20.7 | 12 | 0.309 |
| | 10/25/2016 | 6.1 | 23.5 | 19 | 0.620 |
| | 4/26/2017 | 6.7 | 18.5 | 12 | 0.356 |
| | 10/25/2017 | 6.0 | 20.7 | 2 | 0.705 |
| | 4/26/2018 | 6.1 | 14.7 | 1 | 0.317 |
| MW-18D | | | | | |
| | 10/16/2006 | 6.6 | 18.7 | 1 | 0.304 |
| | 12/19/2006 | 6.5 | 16.1 | 1 | 0.333 |
| | 3/20/2007 | 6.8 | 17.0 | 5 | 0.307 |
| | 10/1/2008 | 6.6 | 17.9 | 1 | 0.309 |
| | 5/21/2009 | 6.7 | 16.9 | 3 | 0.310 |
| | 11/4/2009 | 7.0 | 16.7 | 18 | 0.275 |
| | 4/29/2010 | 6.6 | 21.2 | 0 | 0.331 |
| | 10/7/2010 | 7.1 | 18.4 | < 0.02 | 0.350 |
| | 4/6/2011 | 6.8 | 15.4 | 4 | 0.369 |
| | 10/13/2011 | 6.7 | 19.5 | < 0.02 | 0.352 |
| | 4/16/2012 | 7.0 | 16.3 | < 0.02 | 0.261 |
| | 10/21/2012 | 7.2 | 17.7 | < 0.02 | 0.375 |
| | 5/6/2013 | 7.3 | 23.2 | < 0.02 | 0.346 |
| | 10/1/2013 | 6.8 | 21.9 | 25 | 0.376 |
| | 4/22/2014 | 6.7 | 16.9 | 11 | 0.366 |
| | 10/7/2014 | 6.7 | 18.7 | 9 | 0.366 |
| | 4/15/2015 | 6.6 | 15.1 | 3 | 0.344 |
| | 11/12/2015 | 6.7 | 17.1 | 20 | 0.360 |
| | 4/5/2016 | 6.7 | 17.3 | 9 | 0.356 |
| | 10/25/2016 | 6.4 | 20.5 | 10 | 0.366 |
| | 4/26/2017 | 6.1 | 20.4 | 2 | 0.393 |
| | 10/25/2017 | 6.6 | 18.7 | 9 | 0.397 |
| | 4/26/2018 | 6.8 | 14.7 | 8 | 0.302 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (i) Temperature | , | Specific |
|--------|------------|------|-----------------|-----------|----------|
| | | | per | į | ific |
| Well | Sampling | Hd | [em] | Turbidits | Specific |
| ID | Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-19S | | | | | |
| | 10/16/2006 | 5.9 | 22.7 | 5 | 0.643 |
| | 12/19/2006 | 6.1 | 16.7 | 1 | 0.576 |
| | 3/20/2007 | 5.6 | 18.6 | 0 | 0.545 |
| | 9/26/2008 | 5.5 | 19.3 | 0 | 0.755 |
| | 5/20/2009 | 5.6 | 16.7 | 4 | 0.778 |
| | 11/3/2009 | 6.0 | 19.2 | 0 | 0.665 |
| | 4/29/2010 | 5.7 | 18.2 | 150 | 0.713 |
| | 10/11/2010 | 5.8 | 24.2 | < 0.02 | 0.672 |
| | 4/7/2011 | 5.2 | 16.6 | < 0.02 | 0.787 |
| | 10/16/2011 | 5.7 | 20.5 | 5 | 0.783 |
| | 4/17/2012 | 5.9 | 17.8 | < 0.02 | 0.560 |
| | 10/22/2012 | 5.9 | 22.1 | < 0.02 | 0.773 |
| | 5/5/2013 | 6.0 | 18.4 | < 0.02 | 0.704 |
| | 10/2/2013 | 5.6 | 20.6 | 2 | 0.734 |
| | 4/21/2014 | 5.8 | 16.3 | 15 | 0.701 |
| | 10/7/2014 | 5.8 | 24.2 | 4 | 0.714 |
| | 4/14/2015 | 5.9 | 15.7 | 2 | 0.676 |
| | 11/11/2015 | 5.7 | 19.9 | 5 | 0.672 |
| | 4/6/2016 | 6.1 | 1.0 | 6 | 0.683 |
| | 10/26/2016 | 5.7 | 20.2 | 2 | 0.734 |
| | 4/26/2017 | 5.8 | 21.3 | 5 | 0.661 |
| | 10/25/2017 | 5.9 | 18.6 | 10 | 0.596 |
| | 4/25/2018 | 5.7 | 17.5 | 6 | 0.650 |
| MW-19D | | | | | |
| | 10/18/2006 | 6.2 | 17.8 | 2 | 0.638 |
| | 12/19/2006 | 6.4 | 17.1 | 43 | 0.813 |
| | 3/20/2007 | 6.5 | 20.0 | 0 | 0.711 |
| | 9/29/2008 | 6.4 | 19.3 | 1 | 0.738 |
| | 5/20/2009 | 6.5 | 17.6 | 5 | 0.766 |
| | 11/3/2009 | 6.4 | 17.2 | 18 | 0.620 |
| | 5/4/2010 | 6.1 | 19.5 | 0 | 0.724 |
| | 10/11/2010 | 6.7 | 23.2 | < 0.02 | 0.703 |
| | 4/7/2011 | 6.6 | 16.3 | 14 | 0.776 |
| | 10/17/2011 | 6.7 | 21.2 | < 0.02 | 0.763 |
| | 4/17/2012 | 6.6 | 18.4 | < 0.02 | 0.577 |
| | 10/22/2012 | 6.8 | 21.7 | < 0.02 | 0.744 |
| | 5/5/2013 | 6.8 | 18.2 | < 0.02 | 0.655 |
| | 10/2/2013 | 6.3 | 25.1 | 2 | 0.659 |
| | 4/22/2014 | 6.5 | 18.9 | 29 | 0.654 |
| | 10/7/2014 | 6.5 | 21.9 | 13 | 0.646 |
| | 4/14/2015 | 6.6 | 16.0 | 4 | 0.602 |
| | 11/13/2015 | 6.3 | 17.7 | 2 | 0.608 |
| | 4/5/2016 | 6.7 | 19.1 | 7 | 0.619 |
| | 10/26/2016 | 6.1 | 20.3 | 7 | 0.646 |
| | 4/26/2017 | 6.5 | 18.4 | 11 | 0.567 |
| | 10/25/2017 | 6.6 | 18.3 | 9 | 0.504 |
| | 4/25/2018 | 6.3 | 15.6 | 13 | 0.571 |

 $Table\ E.3.\ Summary\ of\ Field\ Parameters,\ Old\ Midland\ Products\ Superfund\ Site.$

| | | | (i) Temperature | \$ | Specific Conductance |
|-----------|------------------------|------------|-----------------|------------|-------------------------|
| | | | per | bidi | iffic |
| Well | Sampling | Hd | Tem | Turbidity | Specific |
| ID | Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-20S | | | | | |
| | 10/18/2006 | 6.0 | 18.5 | 7 | 1.621 |
| | 12/20/2006 | 5.9 | 19.2 | 12 | 1.426 |
| | 3/21/2007 | 6.2 | 18.9 | 12 | 1.334 |
| | 5/18/2009 | 6.5 | 17.1 | 9 | 1.135 |
| | 11/3/2009 | 6.4 | 18.2 | 0 | 1.060 |
| | 4/28/2010 | 6.5 | 18.6 | 34 | 1.030 |
| | 10/6/2010 | 6.7 | 22.0 | < 0.02 | 1.040 |
| | 4/6/2011 | 6.3 | 17.3 | < 0.02 | 0.999 |
| | 10/16/2011 | 6.5 | 21.7 | 1 | 0.991 |
| | 4/16/2012 | 6.5 | 16.5 | 5 | 0.729 |
| | 10/22/2012 | 6.7 | 19.6 | < 0.02 | 0.993 |
| | 5/2/2013 | 6.7 | 15.3 | < 0.02 | 0.938 |
| | 10/2/2013 | 6.3 | 25.5 | 5 | 0.929 |
| | 4/22/2014 | 6.4 | 19.7 | 24 | 0.865 |
| | 10/8/2014 | 6.4 | 19.9 | 6 | 0.935 |
| | 4/14/2015 | 6.6 | 16.7 | 9 | 0.883 |
| | 11/13/2015 | 6.3 | 19.4 | 1 | 0.818 |
| | 4/5/2016 | 6.7 | 23.7 | 23 | 0.902 |
| | 10/26/2016 | 6.4 | 25.1 | 3 | 0.894 |
| | 4/25/2017 | 6.5 | 27.1 | 120 | 0.942 |
| | 10/24/2017 | 6.5 | 19.9 | 12 | 0.736 |
| 1 411 20D | 4/24/2018 | 6.4 | 25.1 | 108 | 0.764 |
| MW-20D | 10/10/2006 | | 24.0 | 2 | 1 424 |
| | 10/18/2006 | 6.3 | 24.0 | 3 | 1.434 |
| | 12/19/2006 | 6.4 | 15.9 | 22 | 1.461 |
| | 3/21/2007 | 6.4 | 18.4 | 50 | 1.216 |
| | 5/18/2009 | 6.5 | 17.4 | 5 | 1.035 |
| | 11/3/2009 | 6.6 | 17.4 | 10 | 0.853 |
| | 4/28/2010 | 6.6 | 20.2 | 11 | 0.937 |
| | 10/6/2010 | 6.7 5.8 | 27.4 | 6 | 0.685 |
| | 4/6/2011 | 5.8 | 18.6 | < 0.02 | 0.952 |
| | 10/16/2011 | 6.5 | 22.0 | 7 <0.02 | 0.950 0.702 |
| | 4/17/2012 | 6.6 | 17.5 | | |
| | 10/21/2012 5/2/2013 | 6.6 | 19.9 15.4 | <0.02 7 | 0.971 |
| | | 6.6 | | | 0.883 |
| | 10/2/2013 4/21/2014 | 6.4 6.4 | 21.0 16.7 | 36 65 | 0.887 0.833 |
| | 10/7/2014 | 6.5 | 21.7 | 8 | 0.833 |
| | 4/14/2015 | 6.5 | 16.7 | 9 | 0.813 |
| | 11/11/2015 | 6.6 | 18.9 | 9 17 | 0.703 |
| | 11/11/2015 | 7.1 | 19.3 | 28 | 0.722 |
| | 4/4/2016 | 6.3 | 18.6 | 28 17 | 0.711 |
| | 10/25/2016 | 6.5 | 19.3 | 4 | 0.711 |
| | 4/25/2017 | 6.4 | 20.1 | 13 | 0.701 |
| | 10/24/2017 | 6.4 | 18.8 | 9 | 0.701 |
| | | | | | |
| | 4/24/2018 | 6.2 | 21.0 | 19 | 0.634 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (3) Temperature | Ac | Specific |
|--------|------------|------|-----------------|-----------|----------------------|
| | | | pera | į | ific |
| Well | Sampling | Hd | [em] | <u>ji</u> | opec |
| ID | Date | (su) | (C) | (NTU) | Specific (m) Conduct |
| MW-21S | | | | | |
| | 10/11/2006 | 6.2 | 17.3 | 8 | 1.259 |
| | 12/20/2006 | 6.4 | 15.9 | 70 | 1.004 |
| | 3/20/2007 | 6.3 | 16.6 | 11 | 0.767 |
| | 10/15/2008 | 6.2 | 18.6 | 0 | 0.763 |
| | 5/22/2009 | 6.2 | 15.8 | 5 | 0.793 |
| | 11/9/2009 | 6.5 | 17.9 | 46 | 0.633 |
| | 4/29/2010 | 6.2 | 15.2 | 7 | 0.816 |
| | 10/4/2010 | 6.4 | 17.5 | 44 | 0.722 |
| | 4/5/2011 | 6.1 | 19.4 | 20 | 0.744 |
| | 10/12/2011 | 6.4 | 17.8 | 1 | 0.748 |
| | 4/11/2012 | 6.2 | 15.8 | 15 | 0.567 |
| | 10/18/2012 | 6.4 | 18.1 | < 0.2 | 0.786 |
| | 4/30/2013 | 6.5 | 20.5 | 28 | 0.710 |
| | 10/1/2013 | 6.0 | 21.3 | 9 | 0.663 |
| | 4/22/2014 | 6.0 | 16.7 | 23 | 0.735 |
| | 10/8/2014 | 6.0 | 18.7 | 11 | 0.753 |
| | 4/15/2015 | 6.0 | 14.7 | 15 | 0.726 |
| | 11/11/2015 | 6.1 | 18.9 | 8 | 0.793 |
| | 4/6/2016 | 6.0 | 15.9 | 7 | 0.712 |
| | 10/26/2016 | 6.1 | 23.8 | 15 | 0.872 |
| | 4/25/2017 | 6.2 | 17.4 | 10 | 0.746 |
| | 10/23/2017 | 6.2 | 21.3 | 25 | 0.750 |
| | 4/23/2018 | 6.1 | 16.5 | 21 | 0.669 |
| MW-21D | .,20,2010 | 0.1 | 1010 | | 0.005 |
| | 10/11/2006 | 6.9 | 17.1 | 1424 | 0.661 |
| | 12/21/2006 | 7.0 | 15.6 | 500 | 0.703 |
| | 3/20/2007 | 7.0 | 17.6 | 0 | 0.667 |
| | 10/15/2008 | 6.9 | 17.5 | 1 | 0.642 |
| | 5/22/2009 | 7.0 | 16.5 | 5 | 0.631 |
| | 11/9/2009 | 7.0 | 17.0 | 800 | 0.633 |
| | 4/29/2010 | 7.1 | 16.2 | 11 | 0.624 |
| | 10/4/2010 | 7.1 | 16.7 | 74 | 0.656 |
| | 4/5/2011 | 6.7 | 16.9 | 6 | 0.640 |
| | 10/12/2011 | 7.2 | 17.5 | 13 | 0.660 |
| | 4/11/2012 | 7.2 | 17.5 | 2 | 0.469 |
| | 10/18/2012 | 7.2 | 18.6 | < 0.02 | 0.409 |
| | 4/30/2013 | 7.6 | 20.1 | 18 | 0.601 |
| | 10/1/2013 | 7.0 | 22.0 | 11 | 0.577 |
| | 4/22/2014 | 6.8 | 16.7 | 19 | 0.634 |
| | 10/9/2014 | 7.0 | 18.7 | 15 | 0.658 |
| | 4/15/2015 | 6.8 | 14.7 | 10 | 0.609 |
| | 11/11/2015 | 7.1 | 18.8 | 25 | 0.609 |
| | 4/4/2016 | 6.7 | 17.3 | 23 | 0.577 |
| | 10/26/2016 | 7.1 | 22.9 | 23 19 | |
| | | 6.9 | | 50 | 0.618 |
| | 4/25/2017 | | 17.4 | | 0.586 |
| | 10/23/2017 | 6.9 | 21.3 | 29 27 | 0.525 |
| | 4/23/2018 | 6.9 | 16.6 | 37 | 0.509 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (3) Temperature | | Specific |
|------------|------------------|------|-----------------|--------------------|------------------|
| | | | oera | idity | fic |
| ****-11 | C1! | Hd | emţ | urb b | peci |
| Well ID | Sampling Date | (su) | (C) | (DLC) Turbidity | Specific (mS/Sm) |
| MW-22S | | | | | |
| | 10/19/2006 | 6.1 | 17.3 | 4 | 2.046 |
| | 12/19/2006 | 6.1 | 15.8 | 0 | 2.124 |
| | 3/22/2007 | 5.9 | 20.2 | 0 | 2.200 |
| | 9/28/2008 | 6.0 | 18.8 | 1 | 2.105 |
| | 5/19/2009 | 6.1 | 16.6 | 3 | 2.279 |
| | 11/3/2009 | 6.1 | 18.1 | 0 | 2.460 |
| | 4/29/2010 | 6.4 | 15.7 | 5 | 2.370 |
| | 10/5/2010 | 6.3 | 20.1 | < 0.02 | 2.230 |
| | 4/7/2011 | 5.6 | 16.7 | 11 | 2.430 |
| | 10/16/2011 | 6.1 | 22.4 | < 0.02 | 2.470 |
| | 4/16/2012 | 6.2 | 17.3 | < 0.02 | 2.420 |
| | 10/21/2012 | 6.3 | 20.2 | < 0.02 | 2.380 |
| | 5/1/2013 | 6.2 | 19.2 | 32 | 2.610 |
| | 10/1/2013 | 6.0 | 21.1 | < 0.02 | 2.186 |
| | 4/23/2014 | 6.3 | 19.2 | 9 | 2.313 |
| | 10/7/2014 | 6.0 | 21.2 | 5 | 2.428 |
| | 4/16/2015 | 6.0 | 14.7 | 9 | 2.490 |
| | 11/13/2015 | 6.8 | 18.6 | 2 | 2.372 |
| | 4/6/2016 | 6.2 | 21.2 | 2 | 2.791 |
| | 10/28/2016 | 6.4 | 23.3 | 0 | 2.227 |
| | 4/25/2017 | 6.2 | 23.9 | 2 | 2.349 |
| | 10/24/2017 | 6.2 | 18.9 | 0 | 1.991 |
| | 4/24/2018 | 6.1 | 18.4 | 12 | 2.264 |
| MW-22D | | | | | |
| | 10/19/2006 | 6.7 | 16.9 | 5 | 0.655 |
| | 12/19/2006 | 6.7 | 14.7 | 16 | 0.910 |
| | 3/22/2007 | 6.6 | 18.0 | 2 | 1.072 |
| | 9/26/2008 | 6.5 | 18.1 | 1 | 1.006 |
| | 5/19/2009 | 6.7 | 17.3 | 7 | 0.984 |
| | 11/3/2009 | 6.7 | 16.8 | 6 | 0.797 |
| | 4/29/2010 | 6.7 | 16.6 | 8 | 0.964 |
| | 10/5/2010 | 6.9 | 20.6 | < 0.02 | 0.800 |
| | 4/7/2011 | 6.9 | 16.4 | < 0.02 | 0.972 |
| | 10/16/2011 | 6.9 | 20.6 | 4 | 0.918 |
| | 4/16/2012 | 6.9 | 18.0 | < 0.02 | 0.680 |
| | 10/21/2012 | 7.0 | 20.3 | < 0.02 | 0.944 |
| | 5/1/2013 | 7.0 | 19.4 | < 0.02 | 0.906 |
| | 10/1/2013 | 6.7 | 23.3 | 7 | 0.790 |
| | 4/23/2014 | 6.6 | 17.7 | 13 | 0.863 |
| | 10/7/2014 | 6.7 | 20.7 | 9 | 0.813 |
| | 4/15/2015 | 6.5 | 15.8 | < 0.02 | 0.814 |
| | 11/13/2015 | 7.0 | 20.1 | 21 | 0.819 |
| | 4/6/2016 | 7.1 | 22.9 | 11 | 0.874 |
| | 10/28/2016 | 6.8 | 22.9 | 5 | 0.809 |
| | 4/25/2017 | 6.9 | 26.9 | 8 | 0.774 |
| | 10/24/2017 | 6.9 | 18.7 | 408 | 0.647 |
| | 4/24/2018 | 6.9 | 22.7 | 10 | 0.723 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | (C) Temperature | Ai | Specific |
|-------|-------------------------|------------|-----------------|----------------|----------------|
| | | | pera | į | ific |
| Well | Campling | Hd | , in the second | (nta) (nta) | Specific |
| ID | Sampling Date | (su) | (C) | (NTU) | (mS/cm) |
| MW-23 | | | | | |
| | 10/18/2006 | 6.8 | 19.1 | 9 | 0.550 |
| | 12/19/2006 | 6.8 | 16.9 | 0 | 0.6320 |
| | 3/22/2007 | 7.1 | 17.0 | 90 | 0.741 |
| | 9/25/2008 | 6.7 | 18.5 | 0 | 0.732 |
| | 5/19/2009 | 6.9 | 17.3 | 3 | 0.769 |
| | 11/4/2009 | 6.6 | 18.8 | 65 | 0.689 |
| | 4/29/2010 | 1.2 | 17.6 | 3 | 0.859 |
| | 10/11/2010 | 7.1 | 18.9 | < 0.02 | 0.744 |
| | 4/6/2011 | 6.3 | 17.5 | < 0.02 | 0.975 |
| | 10/13/2011 | 7.0 | 18.3 | 4 | 0.833 |
| | 4/10/2012 | 7.0 | 17.8 | < 0.02 | 0.601 |
| | 10/17/2012 | 7.2 | 18.9 | 10 | 0.865 |
| | 5/1/2013 | 7.5 | 22.9 | < 0.02 | 0.831 |
| | 10/1/2013 | 6.9 | 21.2 | 7 | 0.765 |
| | 4/23/2014 | 7.0 | 16.9 | 19 | 0.905 |
| | 10/8/2014 | 6.8 | 19.3 | 10 | 0.829 |
| | 4/15/2015 | 6.9 | 15.7 | 9 | 0.904 |
| | 11/12/2015 | 7.6 | 18.3 | 18 | 0.752 |
| | 4/5/2016 | 6.7 | 17.2 | 9 | 0.822 |
| | 10/25/2016 | 7.1 | 19.0 | 13 | 0.834 |
| | 4/24/2017 | 6.7 | 22.3 | 19 | 0.711 |
| | 10/23/2017 | 7.0 | 19.6 | 2 | 0.843 |
| D | 4/23/2018 | 6.9 | 17.9 | 3 | 0.873 |
| RW-1 | 0.07.000 | | 21.0 | - | 0.516 |
| | 9/27/2006 | 6.0 | 21.0 | 5 | 0.516 |
| | 12/19/2006 | 6.7 | 17.4 | -3 | 0.873 |
| | 3/21/2007 | 6.6 | 17.7 | 0 | 0.909 |
| | 10/8/2008 | 6.5 | 21.1 | 6 | 0.362 |
| | 5/22/2009 | 6.9 7.1 | 24.7 | 28 4 | 1.116 |
| | 11/5/2009 | | 18.6 | 0 | 1.490 |
| | 4/29/2010 10/12/2010 | 6.8 7.3 | 19.7 22.1 | < 0.02 | 1.470 1.120 |
| | 4/7/2011 | 7.0 | 16.5 | < 0.02 | 1.600 |
| | 10/13/2011 | 6.7 | 20.2 | < 0.02 | 1.460 |
| | 4/19/2012 | 6.8 | 18.3 | < 0.02 | 1.040 |
| | 10/23/2012 | 6.9 | 20.9 | < 0.02 | 1.460 |
| | 5/7/2013 | 7.3 | 23.3 | < 0.02 | 0.822 |
| | 10/2/2013 | 6.7 | 21.4 | 1 | 1.240 |
| | 4/23/2014 | 6.8 | 18.5 | 2 | 1.424 |
| | 10/8/2014 | 6.8 | 22.2 | 8 | 1.752 |
| | 4/15/2015 | 6.7 | 15.7 | < 0.02 | 1.200 |
| | 11/13/2015 | 7.0 | 18.6 | 1 | 1.383 |
| | 4/6/2016 | 6.8 | 16.1 | 3 | 1.686 |
| | 10/27/2016 | 6.2 | 20.0 | 4 | 1.618 |
| | 4/27/2017 | 6.7 | 16.8 | 3 | 1.562 |
| | 10/26/2017 | 6.8 | 20.8 | 3 | 1.539 |
| | 4/25/2018 | 6.7 | 15.6 | 2 | 1.201 |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | Temperature | sidity | Specific |
|------|------------|------------------------|-------------------------|--------------------------|----------|
| Well | Sampling | Hd | Lem | Tur. | Spec |
| ID | Date | (su) | (C) | (NTU) | (mS/cm) |
| RW-2 | | | | | |
| | 9/27/2006 | 6.4 | 20.1 | 5 | 0.451 |
| | 12/21/2006 | 6.5 | 14.3 | 41 | 0.097 |
| | 3/21/2007 | 6.8 | 16.5 | 7 | 0.388 |
| | 10/10/2008 | 6.7 | 20.9 | 10 | 0.149 |
| | 11/5/2009 | 7.2 | 18.9 | 3 | 0.285 |
| | 4/29/2010 | 6.8 | 17.6 | 0 | 1.570 |
| | 10/12/2010 | 6.8 | 19.7 | 31 | 1.530 |
| | 4/7/2011 | 7.1 | 16.1 | < 0.02 | 0.703 |
| | 10/18/2011 | 6.8 | 18.1 | < 0.02 | 0.669 |
| | 4/19/2012 | 7.0 | 19.1 | < 0.02 | 0.295 |
| | 10/23/2012 | 7.0 | 21.1 | < 0.02 | 0.305 |
| | 5/7/2013 | 7.2 | 20.0 | < 0.02 | 0.402 |
| | 10/2/2013 | 6.5 | 22.8 | 2 | 0.667 |
| | 4/21/2014 | Flooded below grade si | urface completion, ther | efore well was not samp | pled. |
| | 10/8/2014 | 6.8 | 22.0 | 10 | 0.582 |
| | 4/13/2015 | Flooded below grade si | urface completion, ther | efore well was not samp | pled. |
| | 11/13/2015 | 6.7 | 17.5 | 12 | 0.336 |
| | 4/6/2016 | Flooded below grade si | urface completion, ther | efore well was not samp | pled. |
| | 10/27/2016 | 5.8 | 21.5 | 5 | 0.293 |
| | 4/24/2017 | Flooded below grade so | urface completion, ther | refore well was not samp | pled. |
| | 10/26/2017 | 6.6 | 26.7 | NR | 0.361 |
| | 4/23/2018 | Flooded below grade si | urface completion, ther | refore well was not samp | pled. |
| RW-3 | | | | | |
| | 10/1/2006 | 6.5 | 20.1 | 25 | 0.657 |
| | 12/21/2006 | 6.5 | 13.6 | 32 | 0.144 |
| | 3/21/2007 | 6.6 | 16.9 | 0 | 0.640 |
| | 10/9/2008 | 6.8 | 20.7 | 8 | 0.133 |
| | 11/10/2009 | 7.3 | 19.0 | 0 | 0.491 |
| | 10/11/2010 | 7.0 | 23.0 | < 0.02 | 1.140 |
| | 4/13/2011 | 6.1 | 16.4 | < 0.02 | 0.434 |
| | 10/18/2011 | 7.1 | 17.9 | < 0.02 | 1.020 |
| | 5/8/2013 | 7.3 | 21.0 | < 0.02 | 0.518 |
| | 10/3/2013 | 6.7 | 22.7 | 1 | 0.893 |
| | 4/21/2014 | Flooded below grade so | _ | refore well was not samp | |
| | 10/7/2014 | 6.8 | 21.5 | 2 | 0.889 |
| | 4/13/2015 | Flooded below grade st | _ | | |
| | 11/13/2015 | 6.6 | 18.5 | 2 | 0.959 |
| | 4/6/2016 | Flooded below grade si | | | |
| | 10/27/2016 | 6.0 | 22.6 | 7 | 0.726 |
| | 4/24/2017 | Flooded below grade si | _ | | |
| | 10/25/2017 | 6.8 | 20.3 | 4 | 0.912 |
| | 4/23/2018 | Flooded below grade so | urface completion, ther | refore well was not samp | pled. |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| | | | ure | | nce |
|------------|--------------------------|----------------------------|----------------------------------|----------------------------|-------------------------|
| | | | (3 Temperature | idity | Specific Conductance |
| | | = | emp | ur bi | Specific |
| Well ID | Sampling Date | Ed (su) | (C) | (NTU) | で (mS/cm) |
| RW-4 | Date | (2.2) | (-) | (= = =) | (, |
| 1000 | 10/1/2006 | 6.6 | 19.2 | 6 | 0.481 |
| | 12/21/2006 | 6.6 | 14.5 | 23 | 0.222 |
| | 3/21/2007 | 7.1 | 17.9 | 0 | 0.460 |
| | 10/9/2008 | 6.8 | 20.8 | 16 | 0.147 |
| | 10/11/2010 | 6.7 | 21.3 | 3 | 0.760 |
| | 10/18/2011 | 6.7 | 18.6 | < 0.02 | 0.582 |
| | 10/2/2013 | 6.5 | 23.0 | 5 | 0.414 |
| | 4/21/2014 10/7/2014 | Flooded below grade s 6.9 | surface completion, ther 23.7 | efore well was not samp 5 | oled. 0.581 |
| | 4/13/2015 | | | efore well was not samp | |
| | 11/13/2015 | | _ | efore well was not samp | |
| | 4/6/2016 | - | - | efore well was not samp | |
| | 10/27/2016 | 6.3 | 25.5 | 5 | 0.650 |
| | 4/24/2017 | | | efore well was not samp | |
| | 10/25/2017 | 6.6 | 19.4 | 3 | 0.556 |
| | 4/23/2018 | Flooded below grade s | surface completion, ther | efore well was not samp | oled. |
| RW-5 | | | | | |
| | 10/3/2006 | 6.5 | 19.0 | 33 | 0.408 |
| | 12/20/2006 | 7.4 | 15.5 | 0 | 1.173 |
| | 3/20/2007 | 7.0 | 17.0 | 0 | 0.309 |
| | 10/11/2010 10/17/2011 | 6.6 6.6 | 19.3 21.9 | <0.02 <0.02 | 0.632 0.721 |
| | 10/1//2011 | 6.4 | 20.9 | 2 | 0.721 |
| | 4/21/2014 | | | efore well was not samp | |
| | 10/7/2014 | 6.7 | 23.3 | 5 | 0.777 |
| | 4/13/2015 | Flooded below grade s | surface completion, ther | efore well was not samp | oled. |
| | 11/13/2015 | Flooded below grade s | surface completion, ther | efore well was not samp | oled. |
| | 4/6/2016 | Flooded below grade s | surface completion, ther | efore well was not samp | oled. |
| | 10/27/2016 | 6.4 | 21.2 | 4 | 0.814 |
| | 4/24/2017 | | _ | efore well was not samp | |
| | 10/25/2017 | 6.8 | 20.3 | 21 | 0.732 |
| RW-6 | 4/23/2018 | Flooded below grade s | surface completion, ther | efore well was not samp | oled. |
| K W -0 | 10/3/2006 | 6.0 | 19.8 | 2 | 0.738 |
| | 12/20/2006 | 6.9 | 17.8 | 0 | 0.606 |
| | 3/21/2007 | 6.8 | 16.7 | 23 | 0.743 |
| | 10/10/2008 | 6.7 | 21.0 | 2 | 0.848 |
| | 5/22/2009 | 6.7 | 22.7 | 36 | 0.924 |
| | 11/5/2009 | 6.7 | 18.4 | 0 | 0.817 |
| | 5/4/2010 | 6.6 | 17.6 | 0 | 0.229 |
| | 10/11/2010 | 6.8 | 25.4 | < 0.02 | 0.605 |
| | 4/7/2011 | 6.0 | 16.8 | <0.02 | 0.786 |
| | 10/17/2011 | 6.7 | 21.9 | <0.02 | 0.776 0.596 |
| | 4/17/2012 10/22/2012 | 6.7 6.7 | 18.8 22.1 | <0.02 <0.02 | 0.596 |
| | 5/8/2013 | 7.2 | 25.6 | < 0.02 | 0.630 |
| | 10/2/2013 | 6.6 | 22.4 | 7 | 0.751 |
| | 4/22/2014 | 7.0 | 17.7 | 14 | 0.794 |
| | 10/7/2014 | 6.7 | 22.2 | 5 | 0.789 |
| | 4/13/2015 | Flooded below grade s | surface completion, ther | efore well was not samp | oled. |
| | 11/13/2015 | 6.0 | 18.0 | 2 | 0.730 |
| | 4/6/2016 | 6.7 | 16.8 | 13 | 0.741 |
| | 10/27/2016 | 6.3 | 25.6 | 7 | 0.745 |
| | 4/24/2017 | | _ | efore well was not samp | |
| | 10/26/2017 | 6.3 | 20.3 | 5 10 | 0.753 |
| | 4/25/2018 | 6.3 | 15.0 | 19 | 0.640 |

 $Table\ E.3.\ Summary\ of\ Field\ Parameters,\ Old\ Midland\ Products\ Superfund\ Site.$

| | | | Temperature | b . | Specific Conductance |
|------------|------------------|-----------------------|------------------------|--------------------------|-------------------------|
| | | | era | idit | fic Tuct; |
| 337-11 | C1! | Hd | emj | urb | peci Jond |
| Well ID | Sampling Date | (su) | (C) | (NLU) | Specific (mS/cm) |
| RW-7 | | | | | |
| | 10/5/2006 | 6.8 | 21.6 | 8 | 0.710 |
| | 12/20/2006 | 6.6 | 17.6 | 0 | 0.815 |
| | 3/22/2007 | 6.7 | 17.9 | 0 | 1.010 |
| | 10/8/2008 | 6.4 | 21.5 | 7 | 0.194 |
| | 5/22/2009 | 6.7 | 23.0 | 8 | 1.077 |
| | 11/5/2009 | 7.1 | 18.9 | 0 | 0.589 |
| | 4/29/2010 | 7.0 | 19.8 | 0 | 0.441 |
| | 10/11/2010 | 7.0 | 24.9 | < 0.02 | 0.602 |
| | 4/7/2011 | 6.2 | 16.9 | 2 | 0.599 |
| | 10/17/2011 | 6.9 | 19.9 | < 0.02 | 0.532 |
| | 4/17/2012 | 7.1 | 18.3 | < 0.02 | 0.552 |
| | 10/22/2012 | 7.1 | 20.0 | < 0.02 | 0.517 |
| | 5/8/2013 | 7.2 | 24.5 | < 0.02 | 0.833 |
| | 10/2/2013 | 6.6 | 23.1 | 2 | 0.813 |
| | 4/23/2014 | 6.9 | 16.5 | 6 | 0.828 |
| | 10/8/2014 | 6.8 | 24.7 | 7 | 0.541 |
| | 4/13/2015 | Flooded below grade s | urface completion, the | refore well was not samp | oled. |
| | 11/13/2015 | 6.5 | 19.5 | 10 | 0.380 |
| | 4/6/2016 | Flooded below grade s | urface completion, the | refore well was not sam | pled. |
| | 10/28/2016 | 6.7 | 19.9 | 2 | 0.423 |
| | 4/24/2017 | Flooded below grade s | urface completion, the | refore well was not sam | pled. |
| | 10/26/2017 | 6.7 | 20.4 | 16 | 0.590 |
| | 4/25/2018 | 6.8 | 15.3 | 4 | 0.900 |
| RW-8 | | | | | |
| | 10/5/2006 | 6.7 | 19.8 | 16 | 1.618 |
| | 12/20/2006 | 7.1 | 16.8 | 13 | 0.516 |
| | 3/22/2007 | 7.3 | 17.0 | 0 | 0.553 |
| | 10/8/2008 | 5.8 | 21.7 | 16 | 0.050 |
| | 11/5/2009 | 7.8 | 19.3 | 15 | 0.216 |
| | 4/29/2010 | 6.4 | 17.5 | 3 | 0.188 |
| | 10/12/2010 | 6.7 | 20.8 | < 0.02 | 0.760 |
| | 4/7/2011 | 6.2 | 17.1 | < 0.02 | 1.110 |
| | 10/18/2011 | 6.6 | 17.2 | < 0.02 | 0.385 |
| | 4/17/2012 | 7.0 | 17.4 | 7 | 0.332 |
| | 10/23/2012 | 6.7 | 19.9 | < 0.02 | 0.809 |
| | 5/8/2013 | 7.1 | 20.8 | < 0.02 | 0.478 |
| | 10/2/2013 | 6.2 | 24.0 | 2 | 0.422 |
| | 4/23/2014 | 7.0 | 17.2 | 2 | 0.992 |
| | 10/8/2014 | 6.6 | 23.0 | 7 | 0.275 |
| | 4/14/2015 | Flooded below grade s | urface completion, the | refore well was not samp | pled. |
| | 11/13/2015 | 6.5 | 18.7 | 6 | 0.733 |
| | 4/6/2016 | Flooded below grade s | urface completion, the | refore well was not samp | |
| | 10/28/2016 | 6.7 | 19.8 | 2 | 1.026 |
| | 4/24/2017 | Flooded below grade s | urface completion, the | refore well was not samp | |
| | 10/26/2017 | 6.7 | 22.6 | 74 | 0.927 |
| | 4/23/2018 | Flooded below grade s | urface completion, the | refore well was not samp | pled. |

Table E.3. Summary of Field Parameters, Old Midland Products Superfund Site.

| Well ID | Sampling Date | Hđ (su) | (C) Temperature | (DLZ) (ATurbidity | Specific SC Conductance |
|------------|------------------|------------|-----------------|----------------------|----------------------------|
| Barnes | | | | | |
| | 10/12/2010 | 6.7 | 19.8 | 152 | 0.379 |
| | 4/13/2011 | 6.9 | 18.5 | 44 | 0.300 |
| | 10/17/2011 | 7.9 | 18.5 | 4 | 0.351 |
| | 10/18/2012 | 6.9 | 18.6 | < 0.02 | 0.168 |
| | 10/3/2013 | 6.8 | 21.0 | 4 | 0.247 |
| | 4/22/2014 | 6.8 | 19.5 | 16 | 0.224 |
| | 10/6/2014 | 7.7 | 21.1 | 3 | 0.377 |
| | 4/15/2015 | 6.8 | 15.9 | 10 | 0.227 |
| | 11/10/2015 | 7.2 | 18.4 | 5 | 0.473 |
| | 4/5/2016 | 7.2 | 17.7 | 23 | 0.204 |
| | 10/25/2016 | 7.4 | 25.0 | 38 | 0.277 |
| Neeley | | | | | |
| | 10/9/2006 | 6.2 | 29.2 | 20 | 0.162 |
| | 12/18/2006 | 5.4 | 15.1 | -2 | 0.114 |
| | 3/22/2007 | 5.8 | 16.0 | -3 | 0.086 |
| | 10/22/2008 | n/a | n/a | n/a | n/a |
| | 5/21/2009 | n/a | n/a | n/a | n/a |
| | 5/4/2010 | 5.6 | 16.1 | 0 | 0.130 |
| | 4/13/2011 | 5.3 | 14.0 | < 0.02 | 0.092 |
| | 4/12/2012 | 6.1 | 16.0 | < 0.02 | 0.075 |
| | 10/18/2012 | 6.0 | 18.5 | < 0.02 | 0.108 |
| | 5/2/2013 | 5.8 | 14.6 | < 0.02 | 0.103 |
| | 10/3/2013 | 5.9 | 21.4 | 4 | 0.147 |
| | 4/22/2014 | 5.4 | 18.3 | 4 | 0.092 |
| | 10/6/2014 | 5.5 | 21.0 | 6 | 0.100 |
| | 4/15/2015 | 5.9 | 14.3 | 4 | 0.111 |
| | 11/10/2015 | 5.9 | 19.2 | 5 | 0.092 |
| | 4/5/2016 | 6.8 | 17.4 | 7 | 0.167 |
| | 10/25/2016 | 6.9 | 21.6 | 3 | 0.161 |
| | 4/27/2017 | 7.0 | 16.7 | 5 | 0.299 |
| | 10/25/2017 | 6.7 | 19.8 | 13 | 0.240 |
| | 4/26/2018 | 6.6 | 14.4 | 23 | 0.208 |
| P-5S | | | | | |
| | 4/15/2015 | 6.0 | 15.9 | 1 | 0.112 |